

# PORT CREDIT MEMORIAL ARENA

City of Mississauga



March 26, 2009 – Accessibility Committee



# The Project

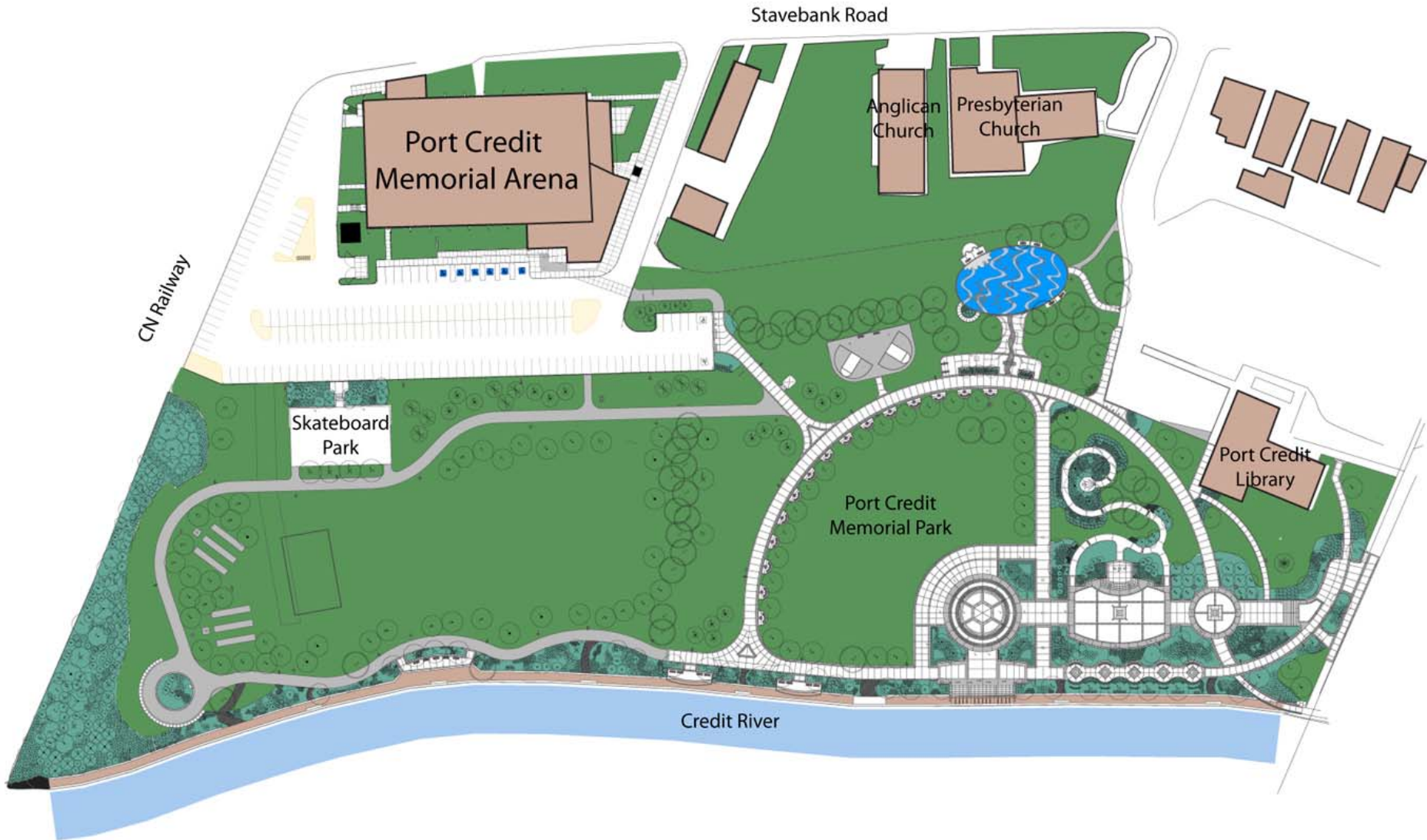
## History

- First Public Arena in Mississauga – built in 1959
- A landmark building: in process of being designated historical under Ontario Heritage Act

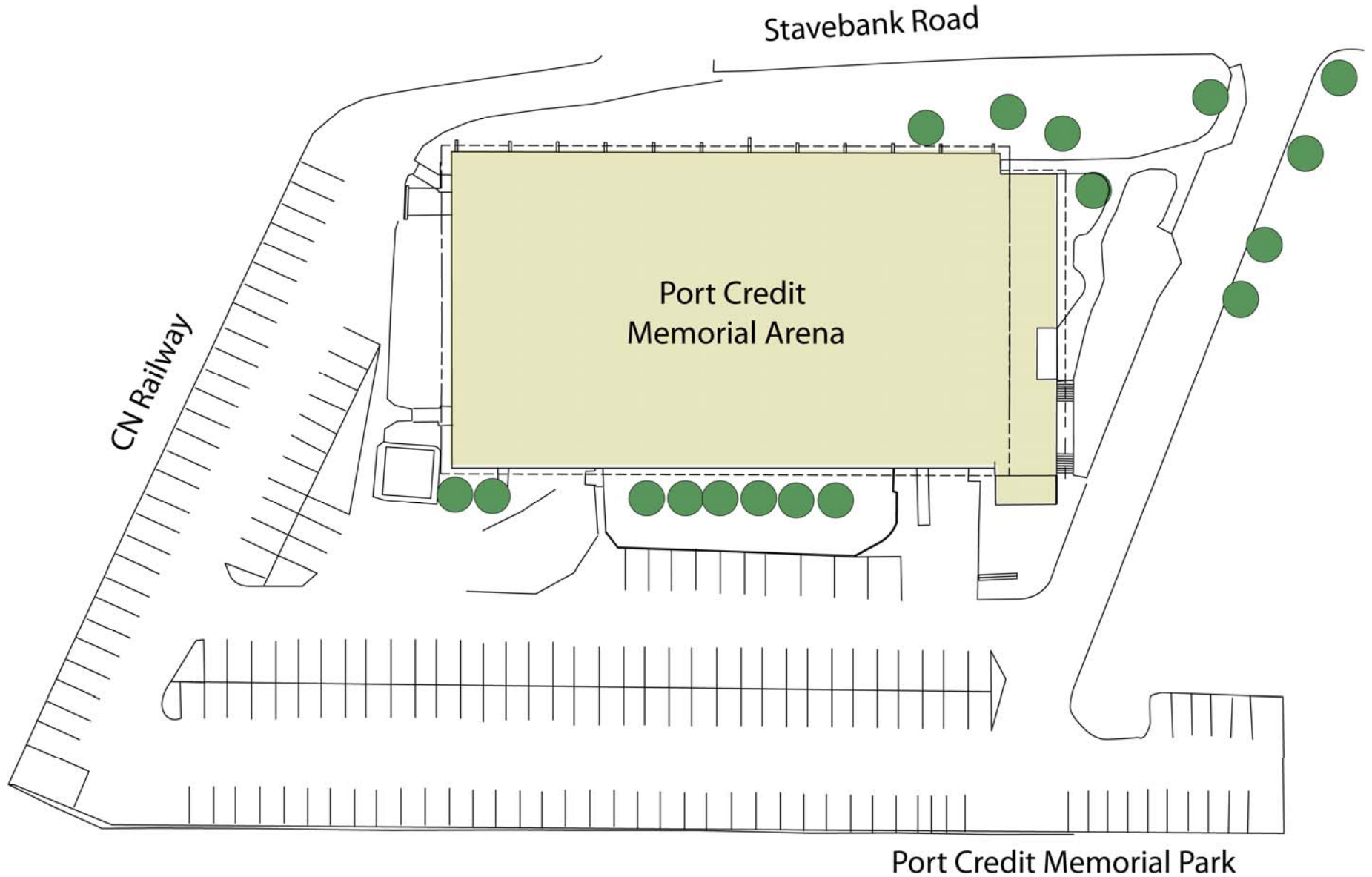
## The Challenges

- Growing Port Credit community
- Demand for Program spaces exceeds available (1 arena and 1 program room)
- Historical building
- Site constraints (Grades)
- Connections to Memorial Park
- Maintenance / Environmental Issues (Site and building)
- Ontario Building Code, Accessibility Guidelines and Universal Design Deficiencies
- City of Mississauga standards
- **Limited budget**

# Context Plan



# Site Plan



# Perspectives



Existing View from Stavebank

# Perspectives



**Existing View from the Parking Lot**

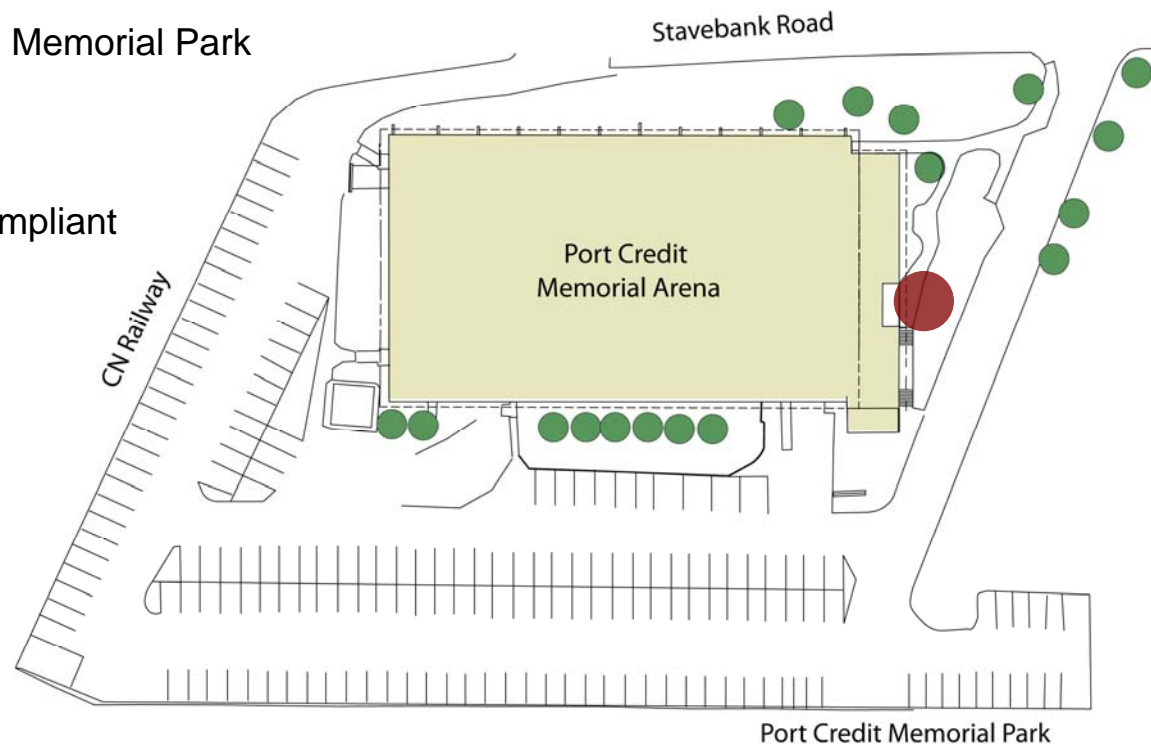
# Perspectives



Existing View from Driveway

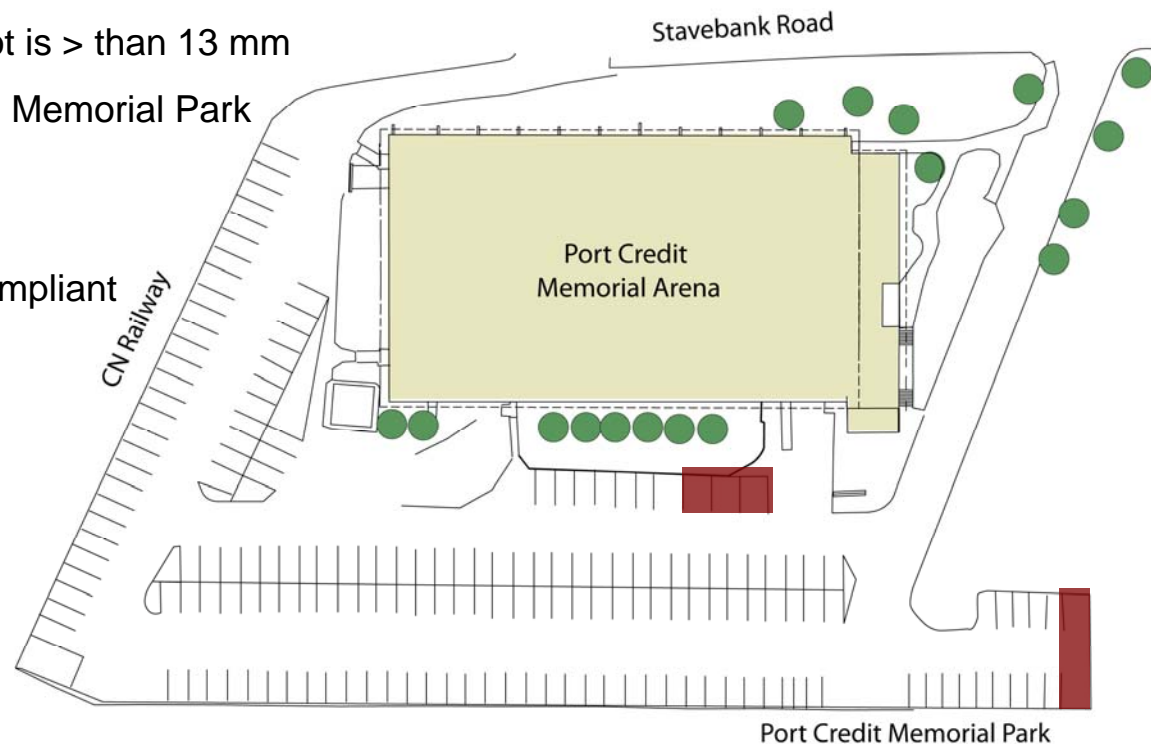
# Site Deficiencies

- **No access to main entrance from parking lot**
- 3 Parking spaces < than the required 4.6m wide
- The edge of curb from the parking lot is > than 13 mm
- There are no sidewalk access to the Memorial Park from Stavebank Road
- Ramps:
  - handrails are missing or not compliant
  - slopes > minimum 1:12
- Stairs:
  - handrail or handrail extension
  - contrasting tread nosing
  - risers and treads dimensions



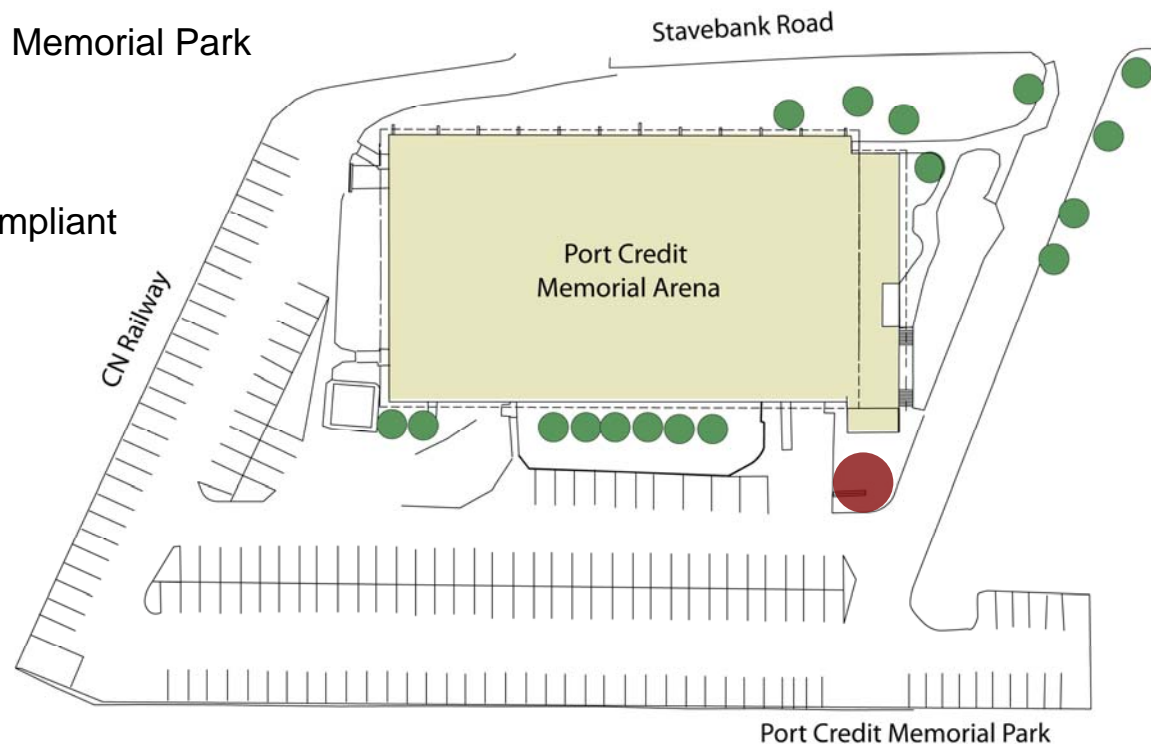
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**(+ 2 spaces at the park)**
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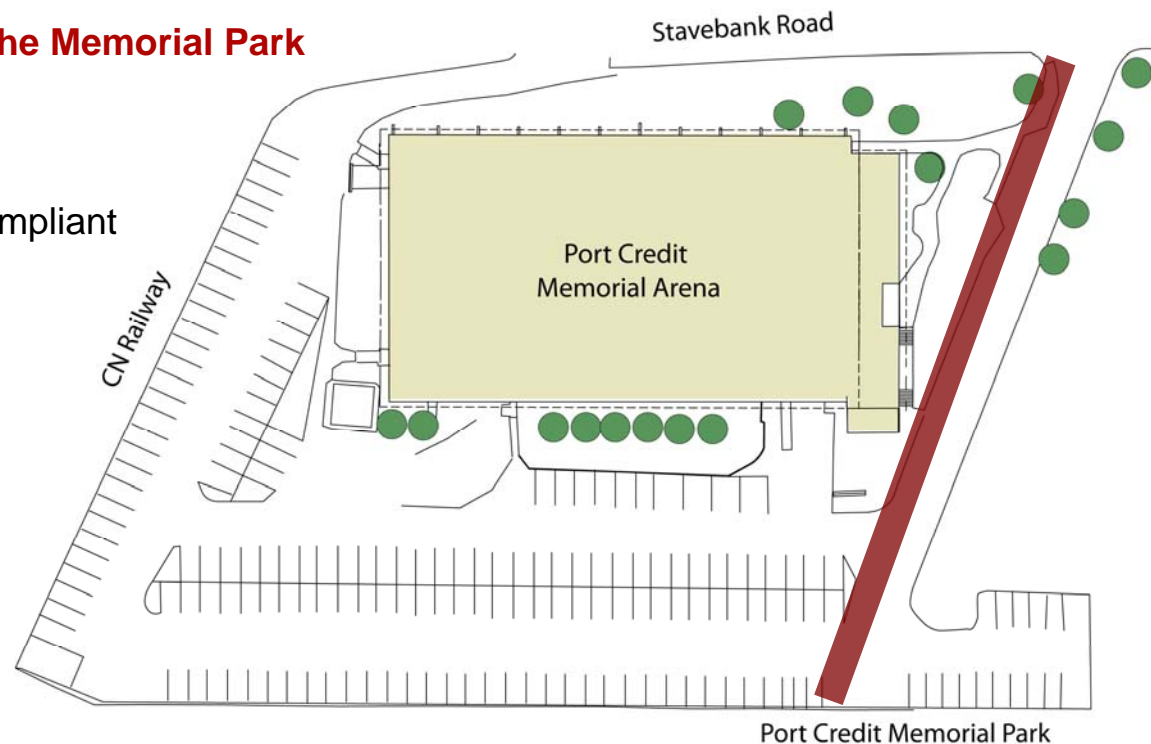
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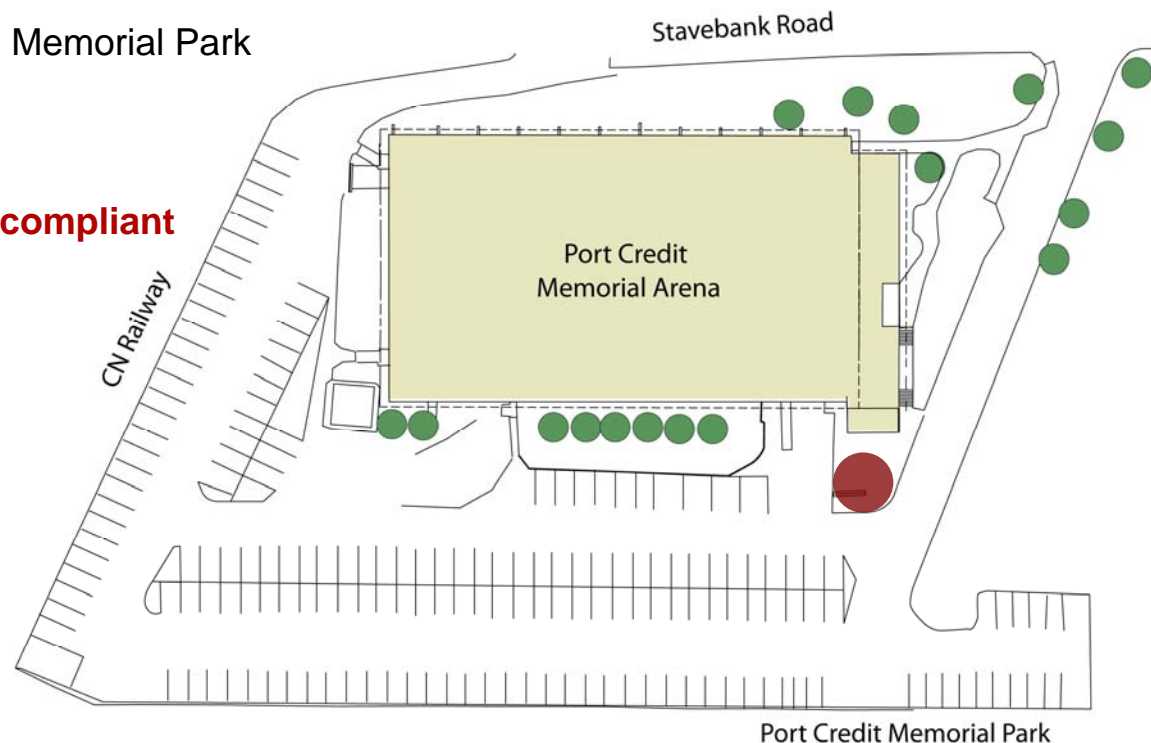
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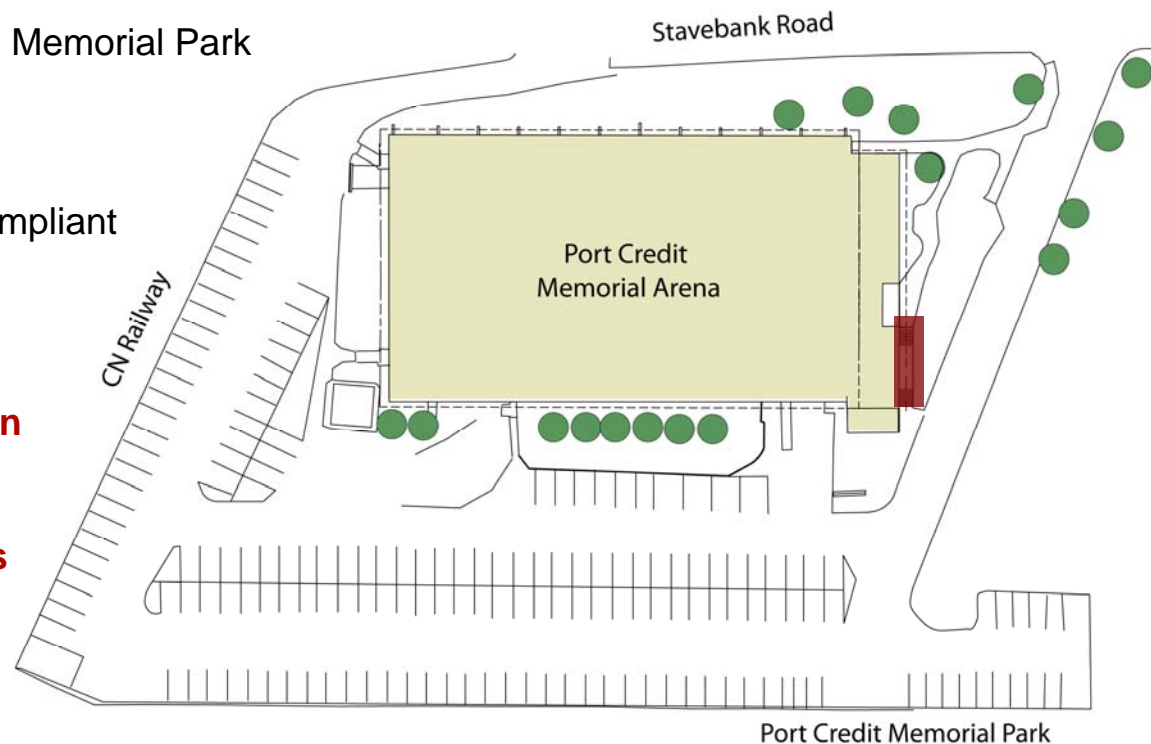
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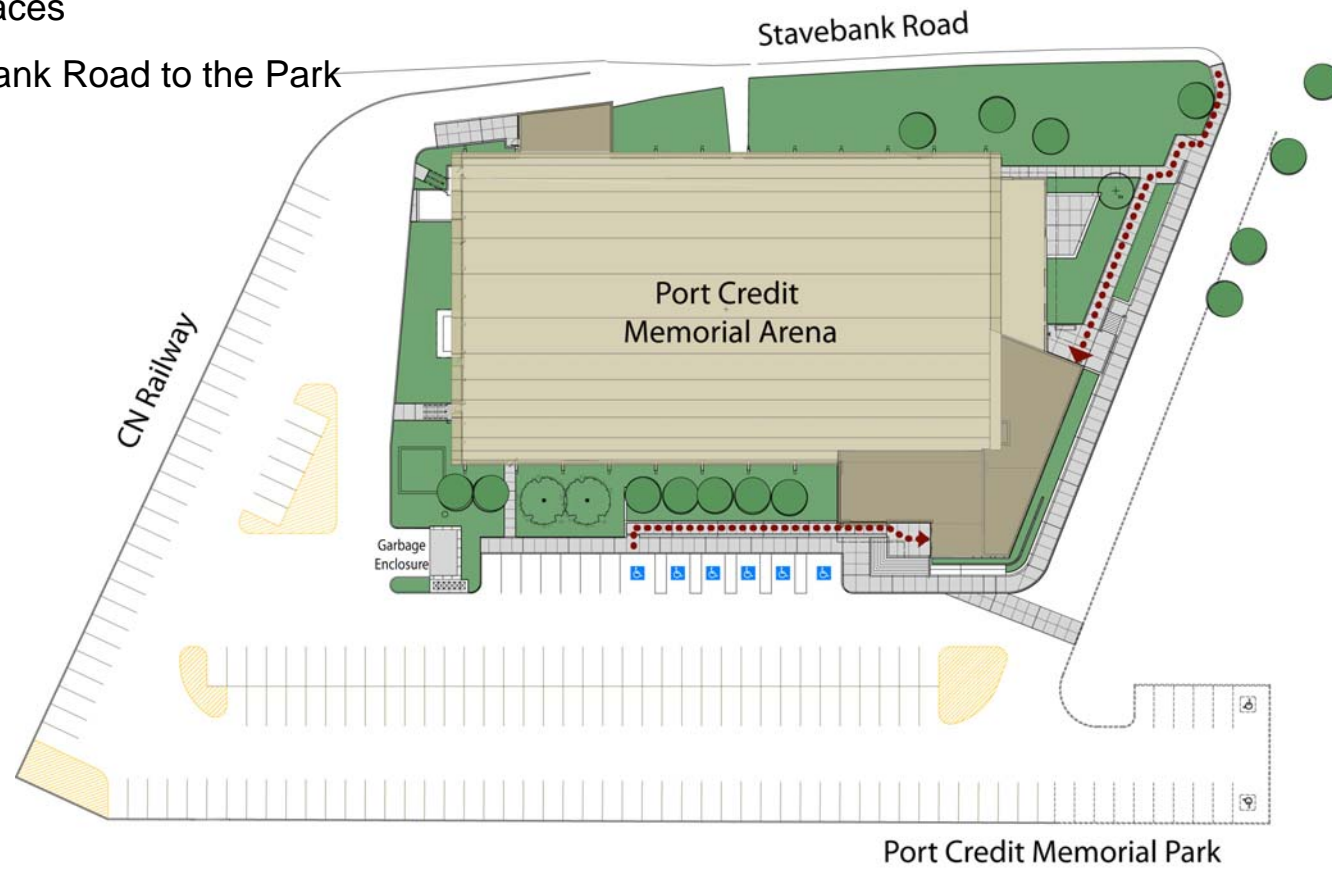
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  - **risers and treads dimensions**



# Site Improvements

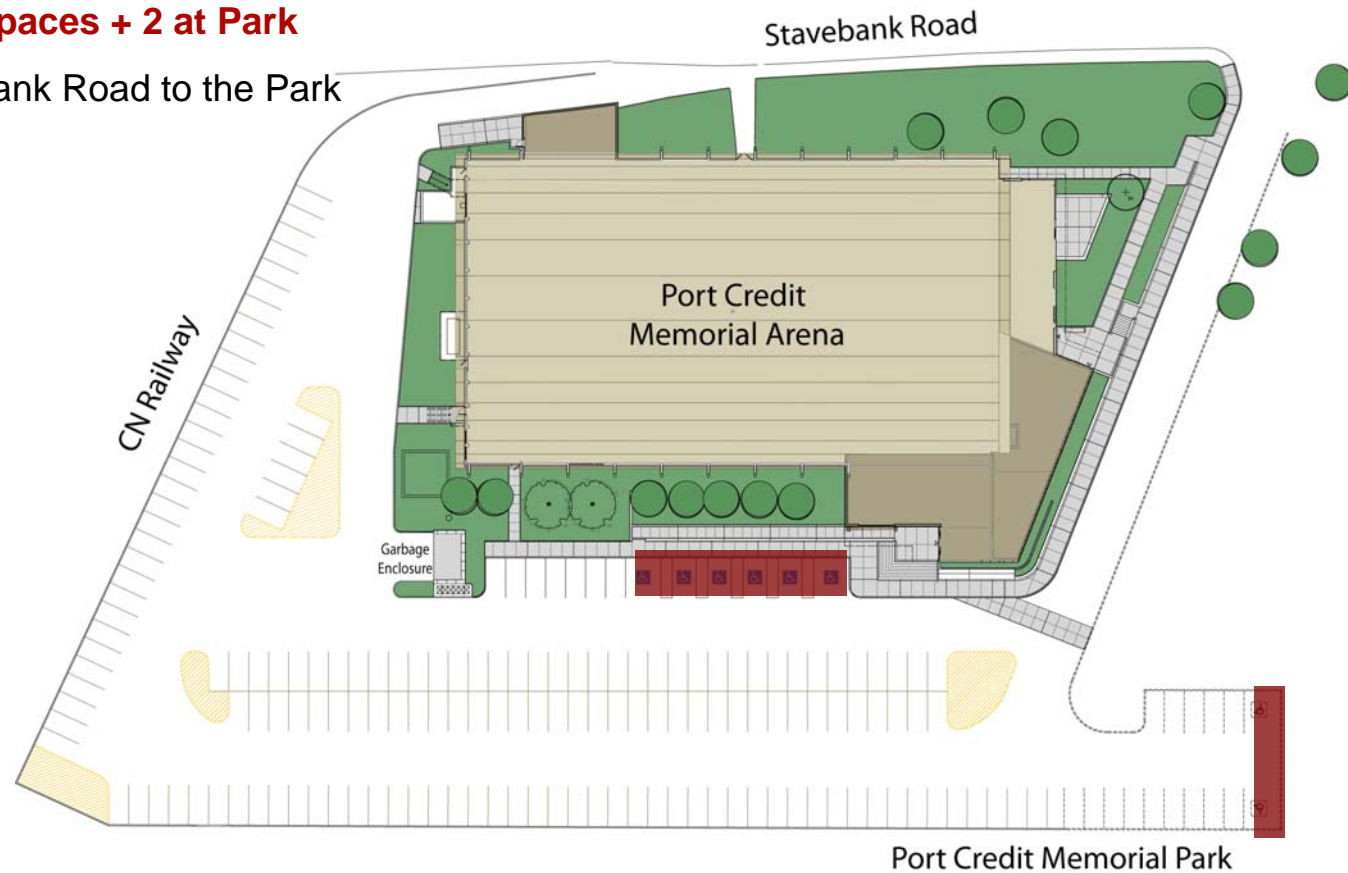
- **Access to the building from the parking area**
- 7 accessible parking spaces
- Sidewalk linking Stavebank Road to the Park
- Ramps:
  - handrails
  - slope
- Stairs:
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  - contrasting treads



Port Credit Memorial Park

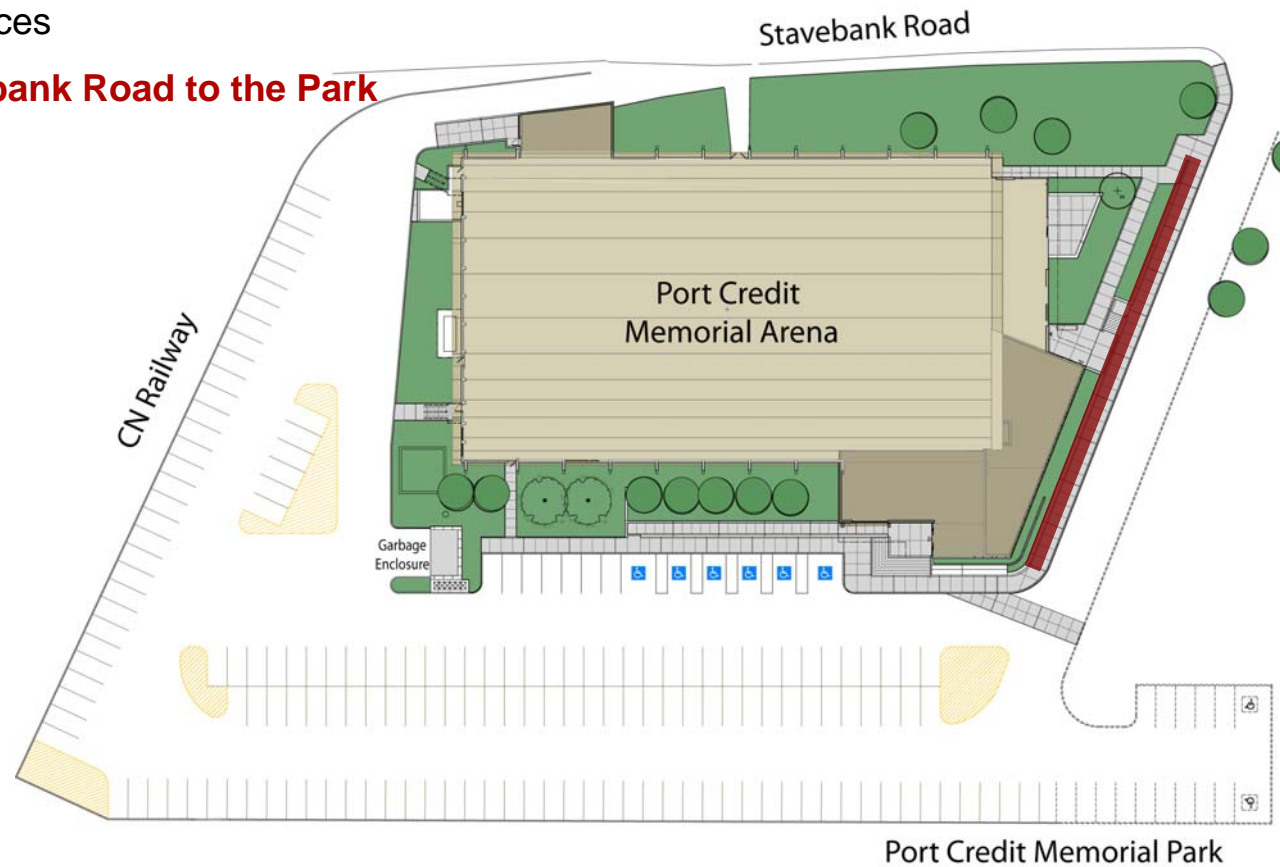
# Site Improvements

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- Sidewalk linking Stavebank Road to the Park
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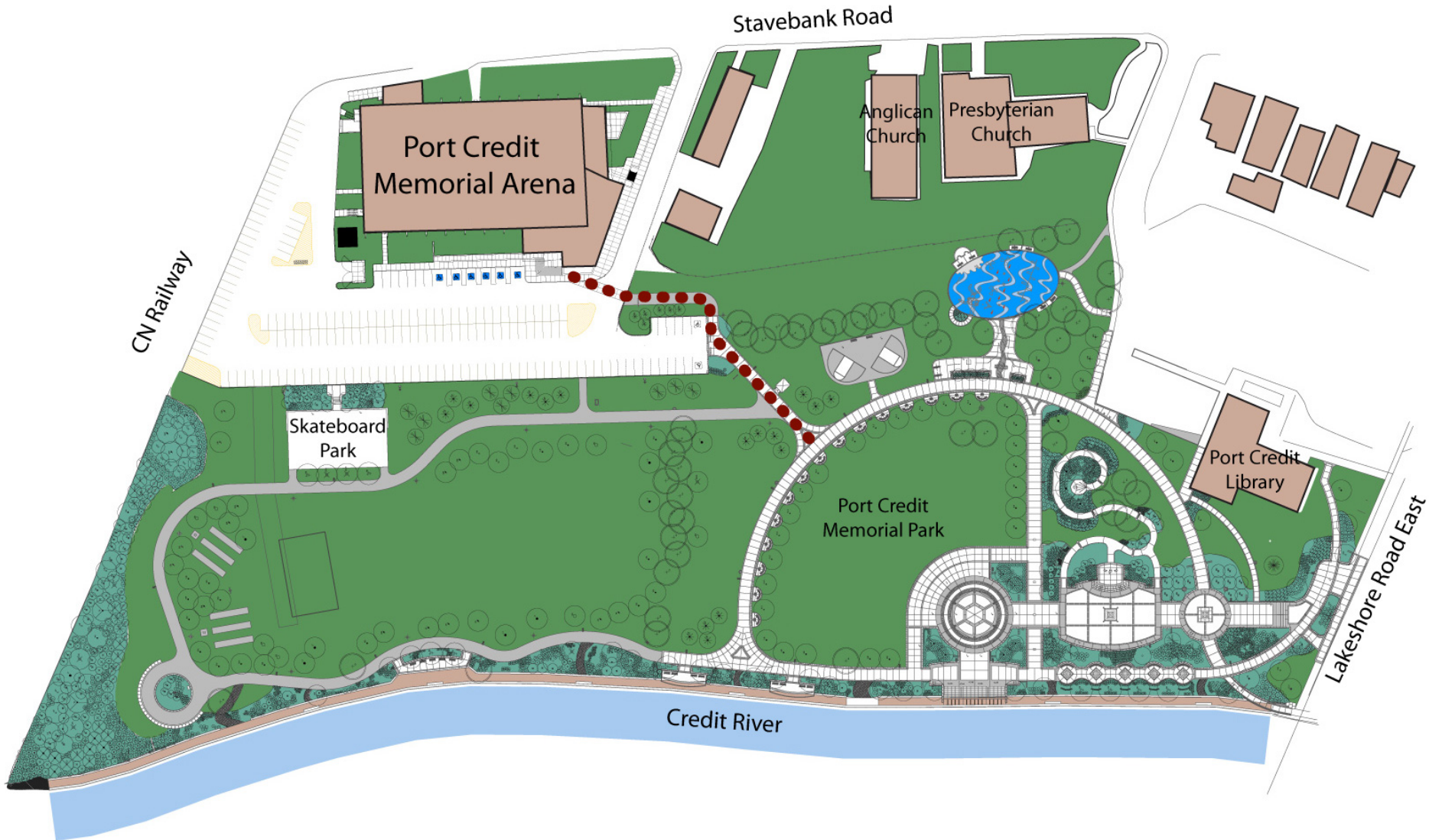


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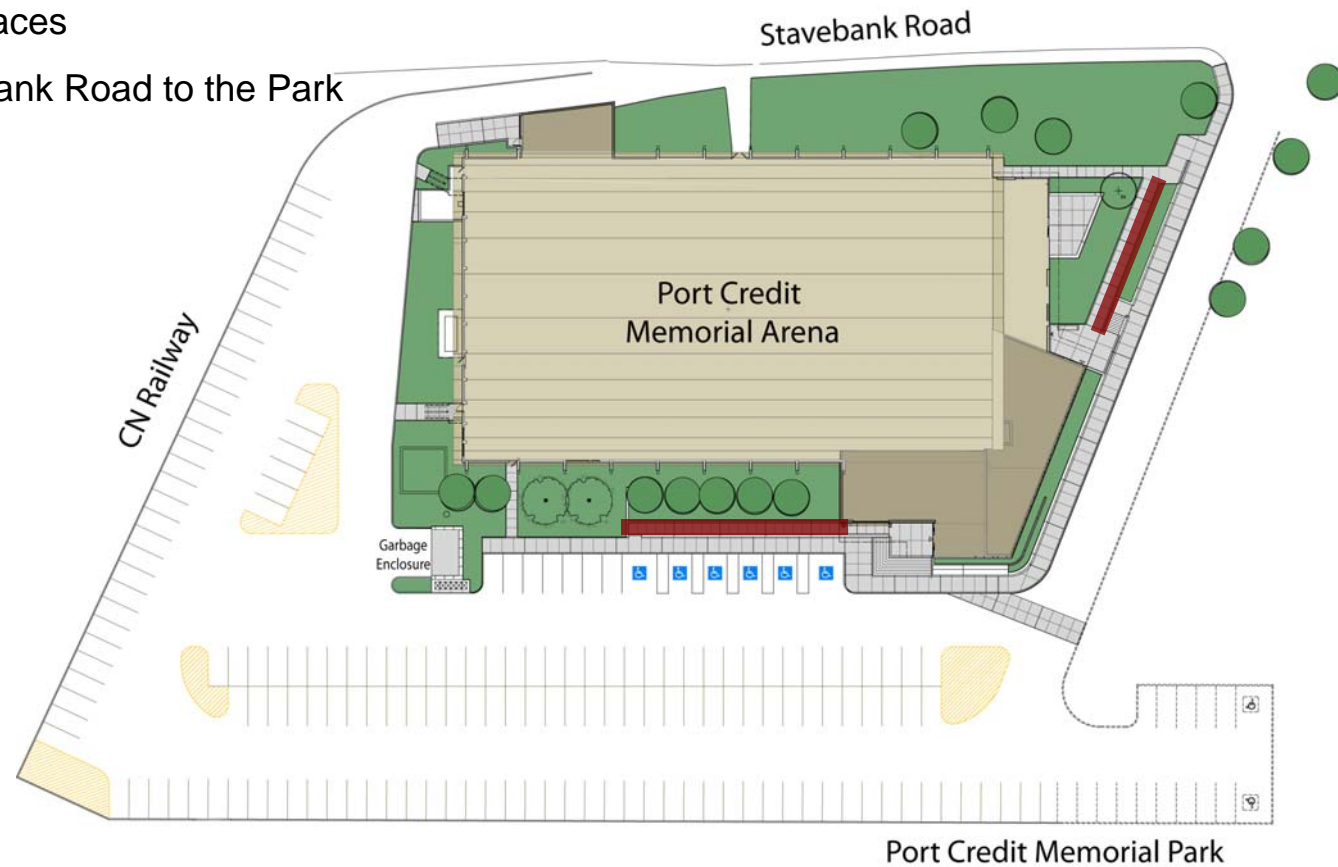


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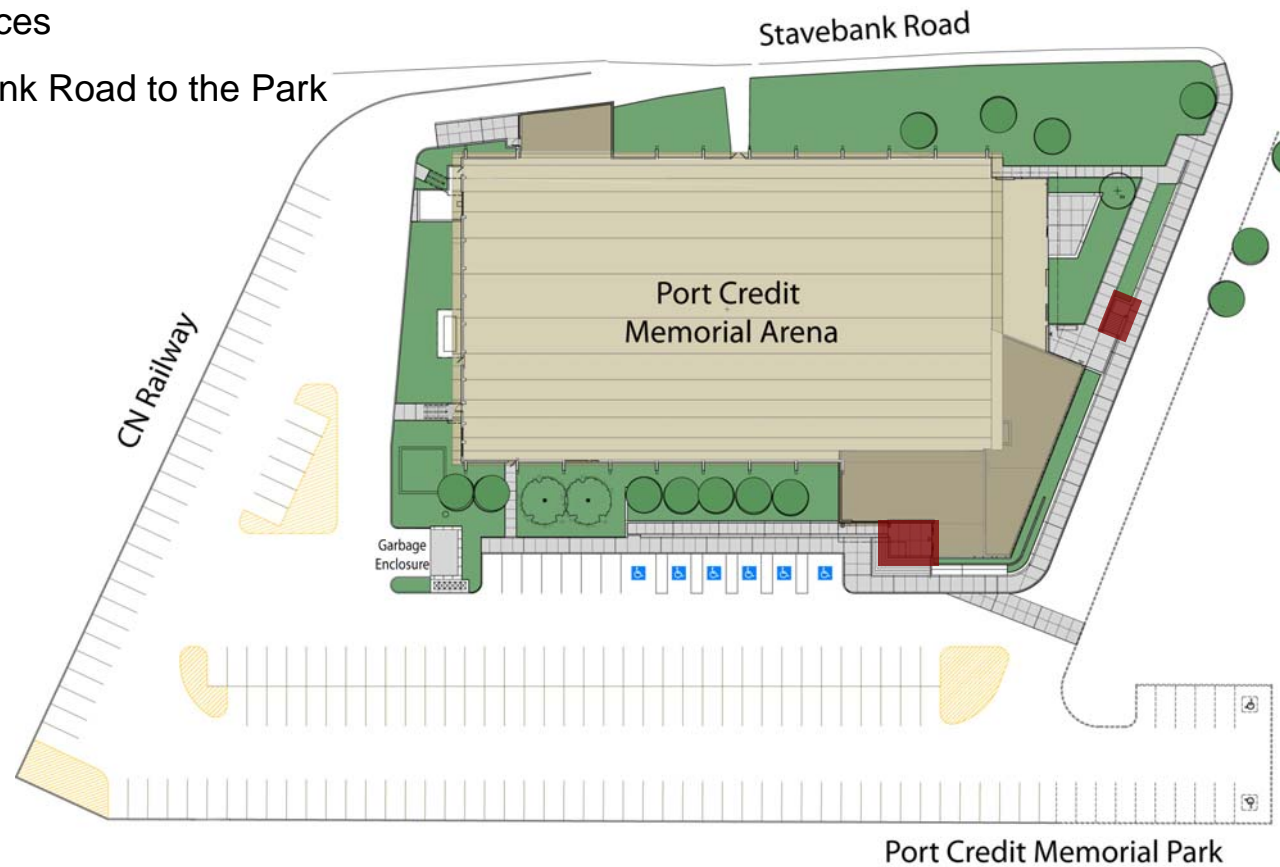
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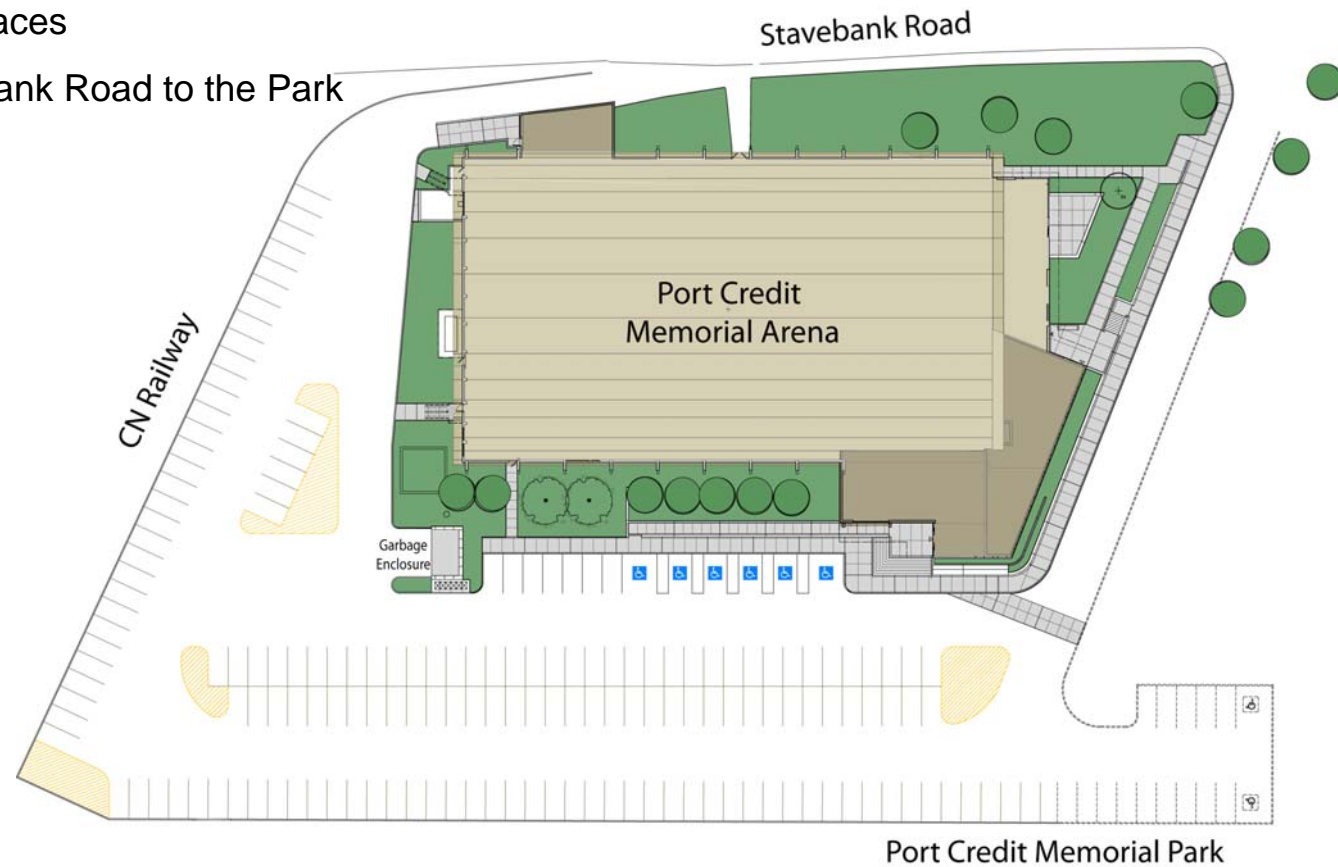
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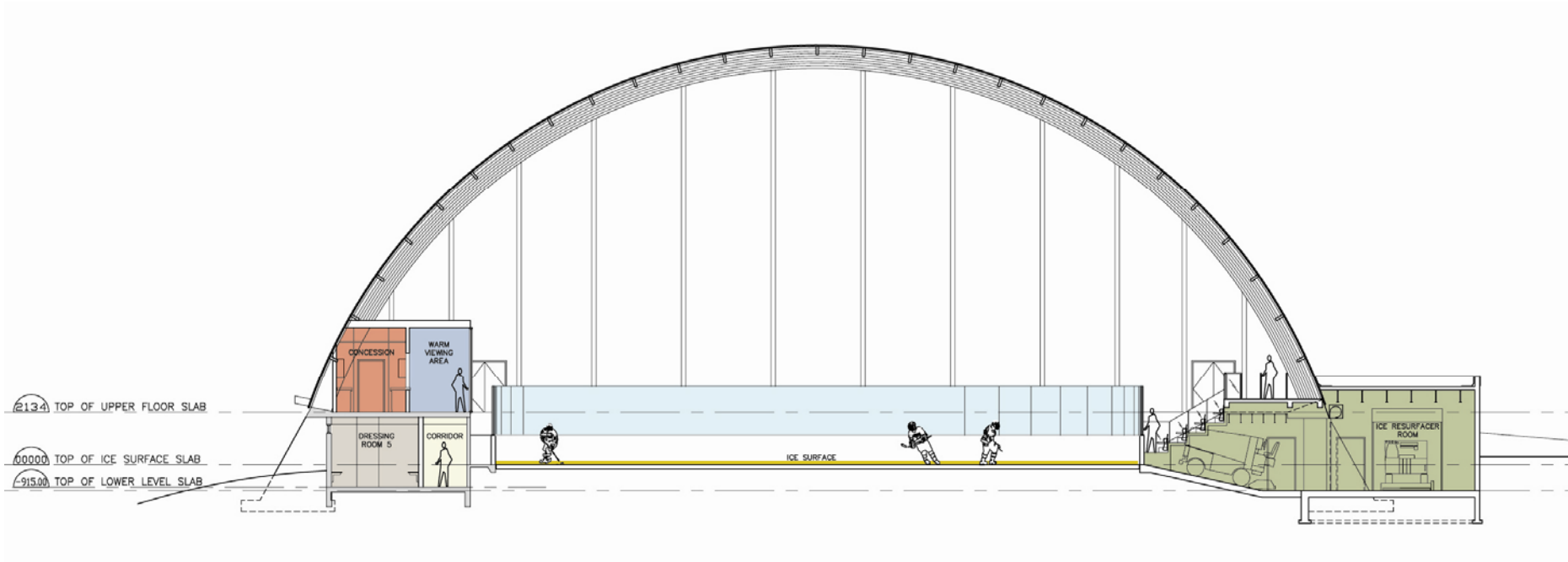


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- **Curb cuts/edges**



# Section



# Building Deficiencies

- **Ramps:**
  - **handrails are missing or not compliant**
  - **slopes > the minimum 1:12**
- Doors: hardware and clearances
- Inaccessible counter at reception desk
- Ice rink, player's benches, time keeper and penalty box are inaccessible
- Stairs:
  - Handrails missing or not compliant
  - contrasting tread nosing missing
  - risers and treads inconsistent
- No elevator – Lower level inaccessible



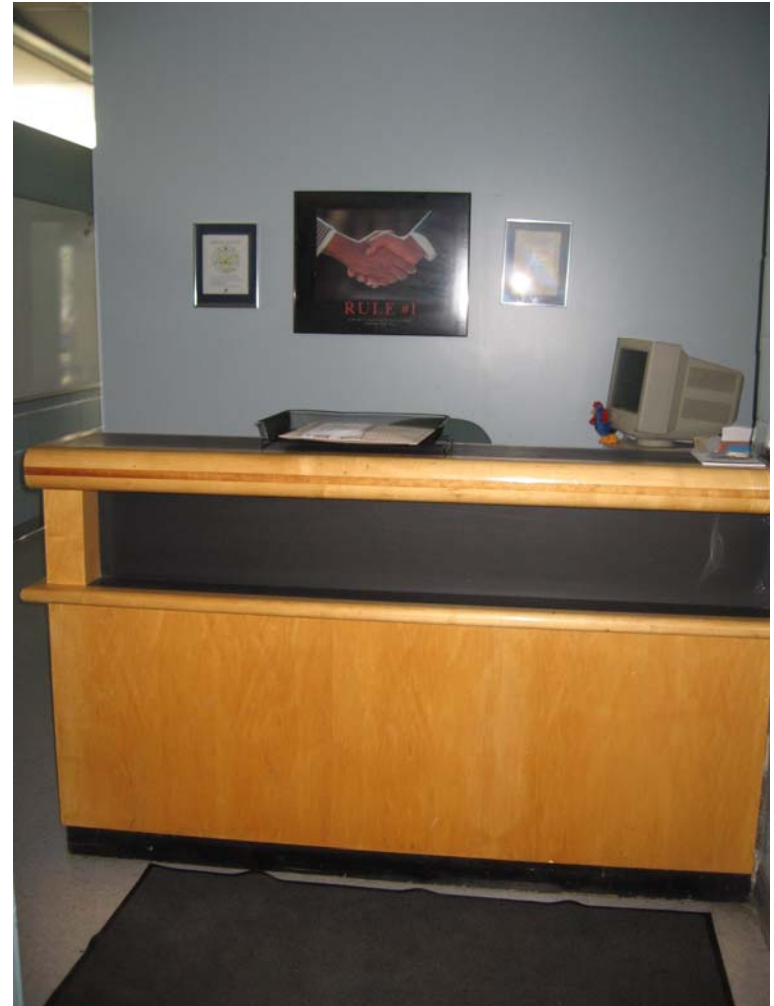
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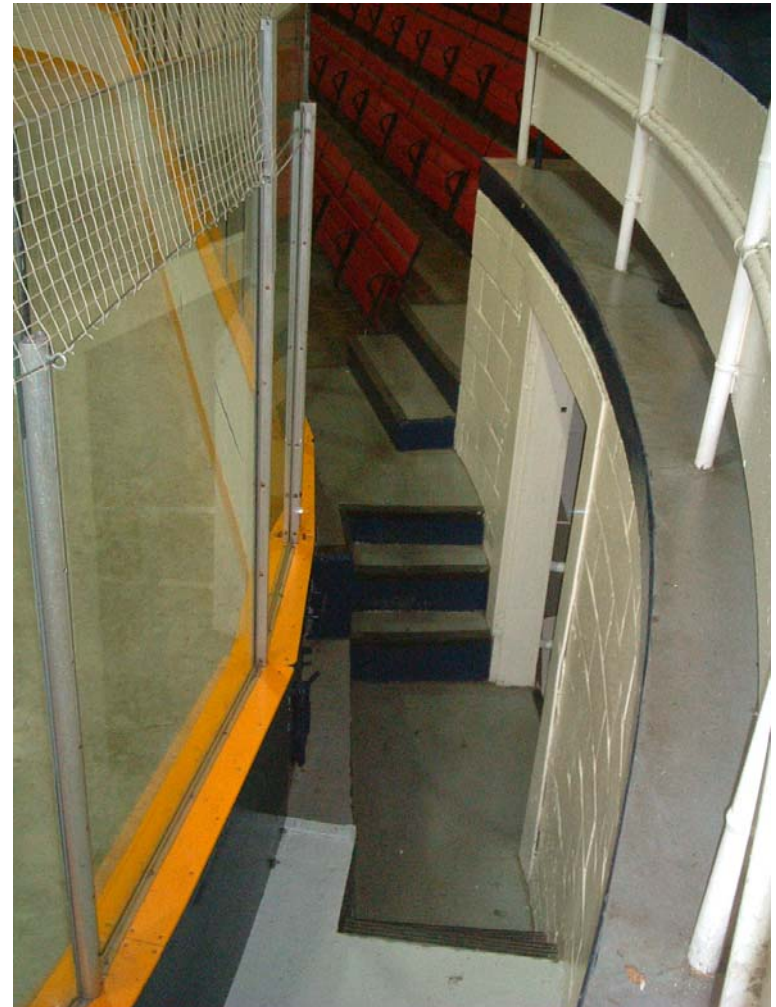
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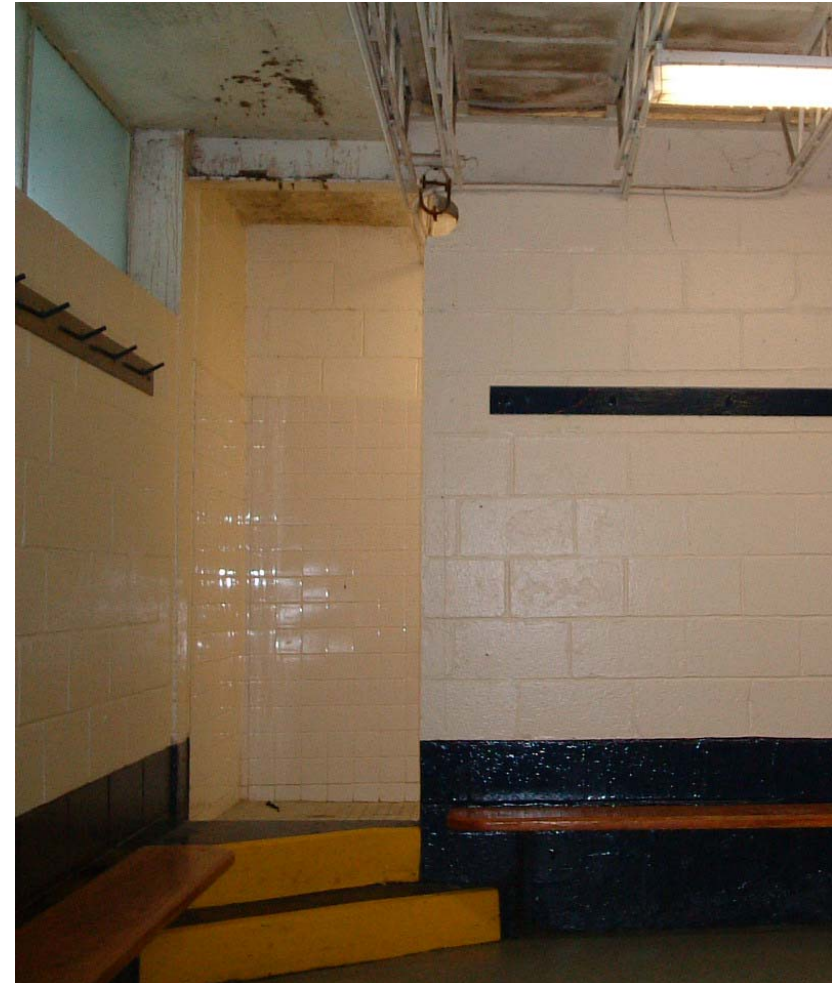


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# Building Deficiencies

- **Accessible dressing rooms are not provided (6 dressing rooms currently):**
  - **bench**
  - **washroom stall**
  - **shower**
  - **turning diameter**
- Family change room is not provided
- Separate change room for Male and Female are not provided
- Washrooms :
  - Universal Toilet Room
  - turning diameter
  - stalls
  - toilet, urinal and vanity
- Viewing and Seating Area



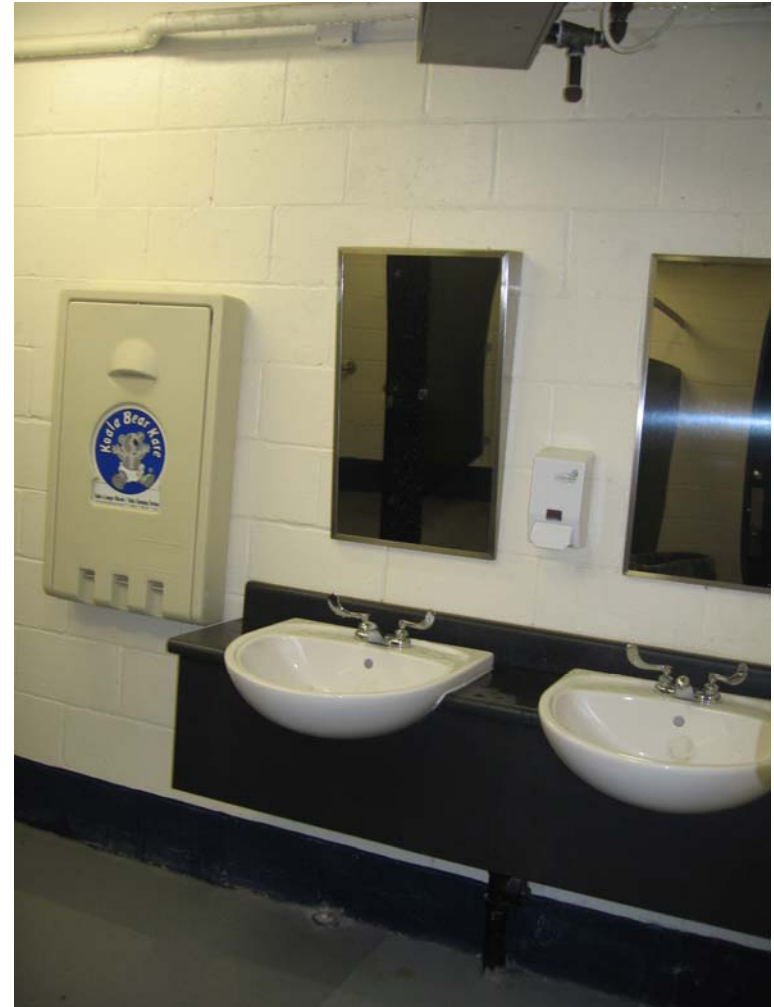
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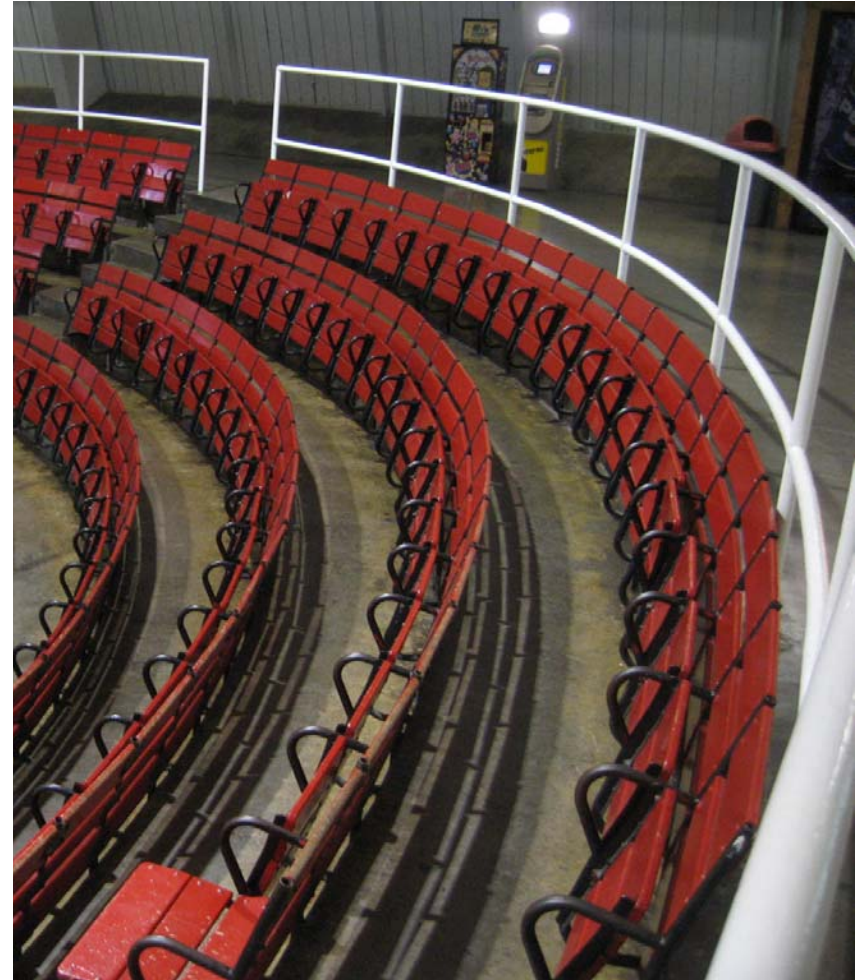
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- **Viewing and Seating Area**



# Universal Design

## THE PRINCIPLES OF UNIVERSAL DESIGN

Version 2.0 (4/1/97)

### 1 EQUITABLE USE

The design is useful and marketable to people with diverse abilities.



- GUIDELINES**
- 1a. Provide the same means of use for all users: identical whenever possible; equivalent when not.
  - 1b. Avoid segregating or stigmatizing any users.
  - 1c. Make provisions for privacy, security, and safety equally available to all users.
  - 1d. Make the design appealing to all users.
- EXAMPLES**
- Power doors with sensors at entrances that are convenient for all users
  - Integrated, dispersed, and adaptable seating in assembly areas such as sports arenas and theaters

### 5 TOLERANCE FOR ERROR

The design minimizes hazards and the adverse consequences of accidental or unintended actions.



- GUIDELINES**
- 5a. Arrange elements to minimize hazards and errors: most used elements, most accessible; hazardous elements eliminated, isolated, or shielded.
  - 5b. Provide warnings of hazards and errors.
  - 5c. Provide fail safe features.
  - 5d. Discourage unconscious action in tasks that require vigilance.
- EXAMPLES**
- A double-cut car key easily inserted into a recessed keyhole in either of two ways
  - An "undo" feature in computer software that allows the user to correct mistakes without penalty

### 2 FLEXIBILITY IN USE

The design accommodates a wide range of individual preferences and abilities.



- GUIDELINES**
- 2a. Provide choice in methods of use.
  - 2b. Accommodate right- or left-handed access and use.
  - 2c. Facilitate the user's accuracy and precision.
  - 2d. Provide adaptability to the user's pace.
- EXAMPLES**
- Scissors designed for right- or left-handed users
  - An automated teller machine (ATM) that has visual, tactile, and audible feedback, a tapered card opening, and a palm rest

### 6 LOW PHYSICAL EFFORT

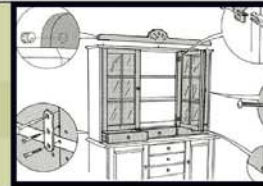
The design can be used efficiently and comfortably and with a minimum of fatigue.



- GUIDELINES**
- 6a. Allow user to maintain a neutral body position.
  - 6b. Use reasonable operating forces.
  - 6c. Minimize repetitive actions.
  - 6d. Minimize sustained physical effort.
- EXAMPLES**
- Lever or loop handles on doors and faucets
  - Touch lamps operated without a switch

### 3 SIMPLE AND INTUITIVE USE

Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.



- GUIDELINES**
- 3a. Eliminate unnecessary complexity.
  - 3b. Be consistent with user expectations and intuition.
  - 3c. Accommodate a wide range of literacy and language skills.
  - 3d. Arrange information consistent with its importance.
  - 3e. Provide effective prompting and feedback during and after task completion.
- EXAMPLES**
- A moving sidewalk or escalator in a public space
  - An instruction manual with drawings and no text

### 7 SIZE AND SPACE FOR APPROACH AND USE

Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.



- GUIDELINES**
- 7a. Provide a clear line of sight to important elements for any seated or standing user.
  - 7b. Make reach to all components comfortable for any seated or standing user.
  - 7c. Accommodate variations in hand and grip size.
  - 7d. Provide adequate space for the use of assistive devices or personal assistance.
- EXAMPLES**
- Controls on the front and clear floor space around appliances, mailboxes, dumpsters, and other elements
  - Wide gates at subway stations that accommodate all users

### 4 PERCEPTIBLE INFORMATION

The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.



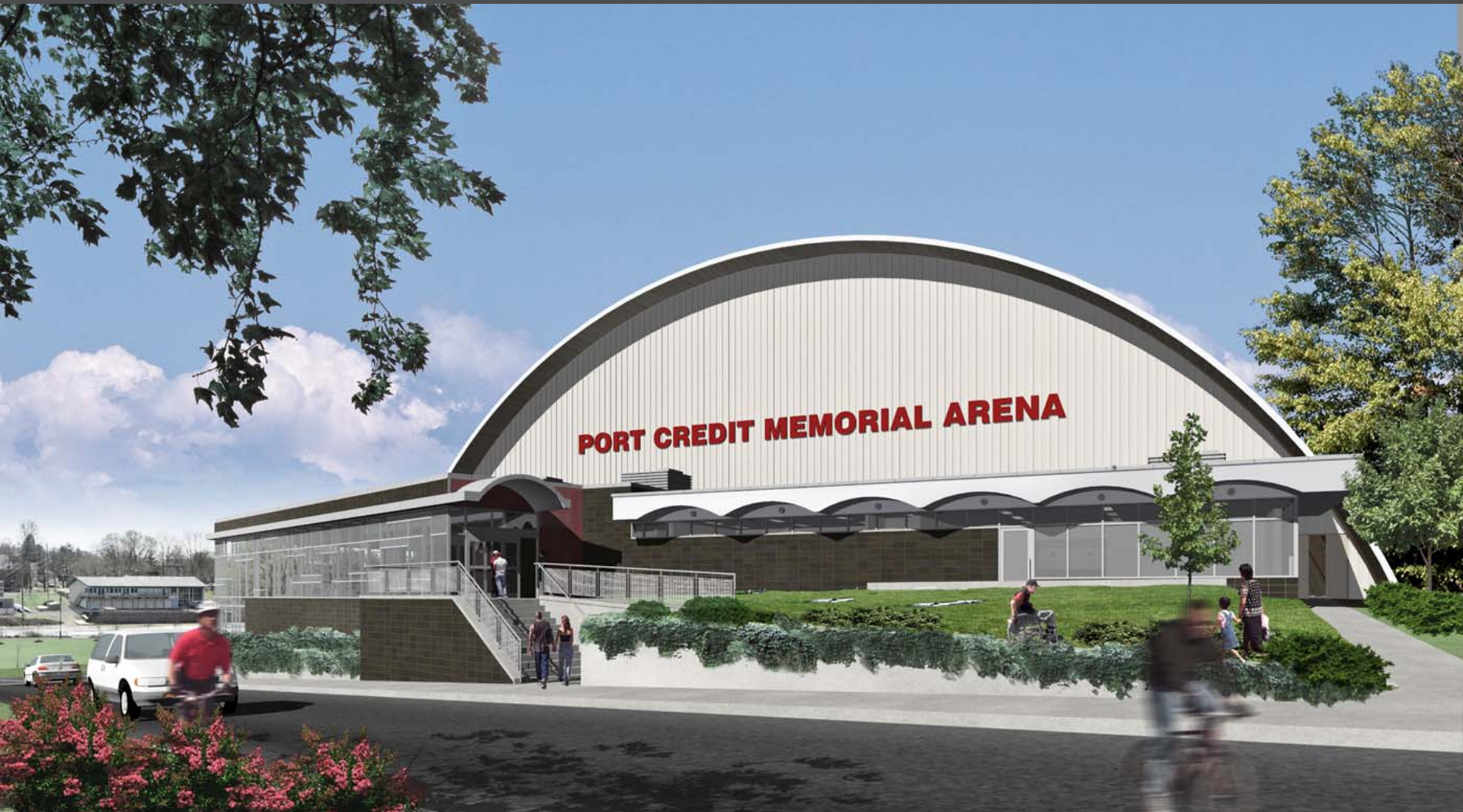
- GUIDELINES**
- 4a. Use different modes (pictorial, verbal, tactile) for redundant presentation of essential information.
  - 4b. Maximize "legibility" of essential information.
  - 4c. Differentiate elements in ways that can be described (i.e., make it easy to give instructions or directions).
  - 4d. Provide compatibility with a variety of techniques or devices used by people with sensory limitations.
- EXAMPLES**
- Tactile, visual, and audible cues and instructions on a thermostat
  - Redundant cueing (e.g., voice communications and signage) in airports, train stations, and subway cars

THE PRINCIPLES WERE COMPILED BY ADVOCATES OF UNIVERSAL DESIGN, IN ALPHABETICAL ORDER:

Bettye Rose Connell, Mike Jones,  
Ron Mace, Jim Mueller,  
Abir Mullick, Elaine Ostroff,  
Jon Sanford,  
Ed Steinfeld, Molly Story,  
and Gregg Vanderheiden.

**NOTE:**  
The Principles of Universal Design are not intended to constitute all criteria for good design, only universally usable design. Certainly, other factors are important, such as aesthetics, cost, safety, gender and cultural appropriateness and these aspects must also be taken into consideration when designing.

# Perspectives



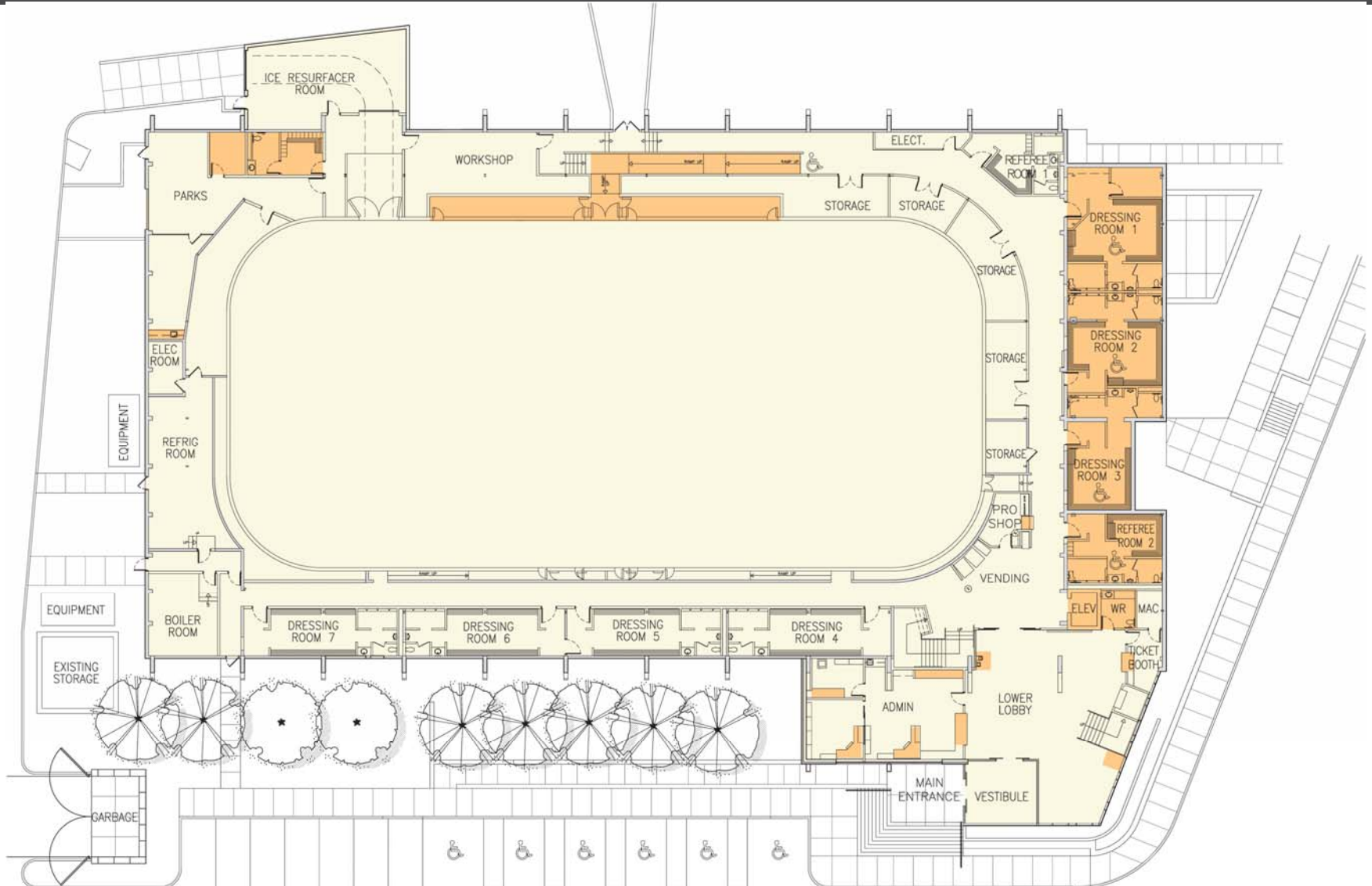
Concept View from Stavebank

# Perspectives



Concept View from the Parking Lot

# Concept Floor Plans



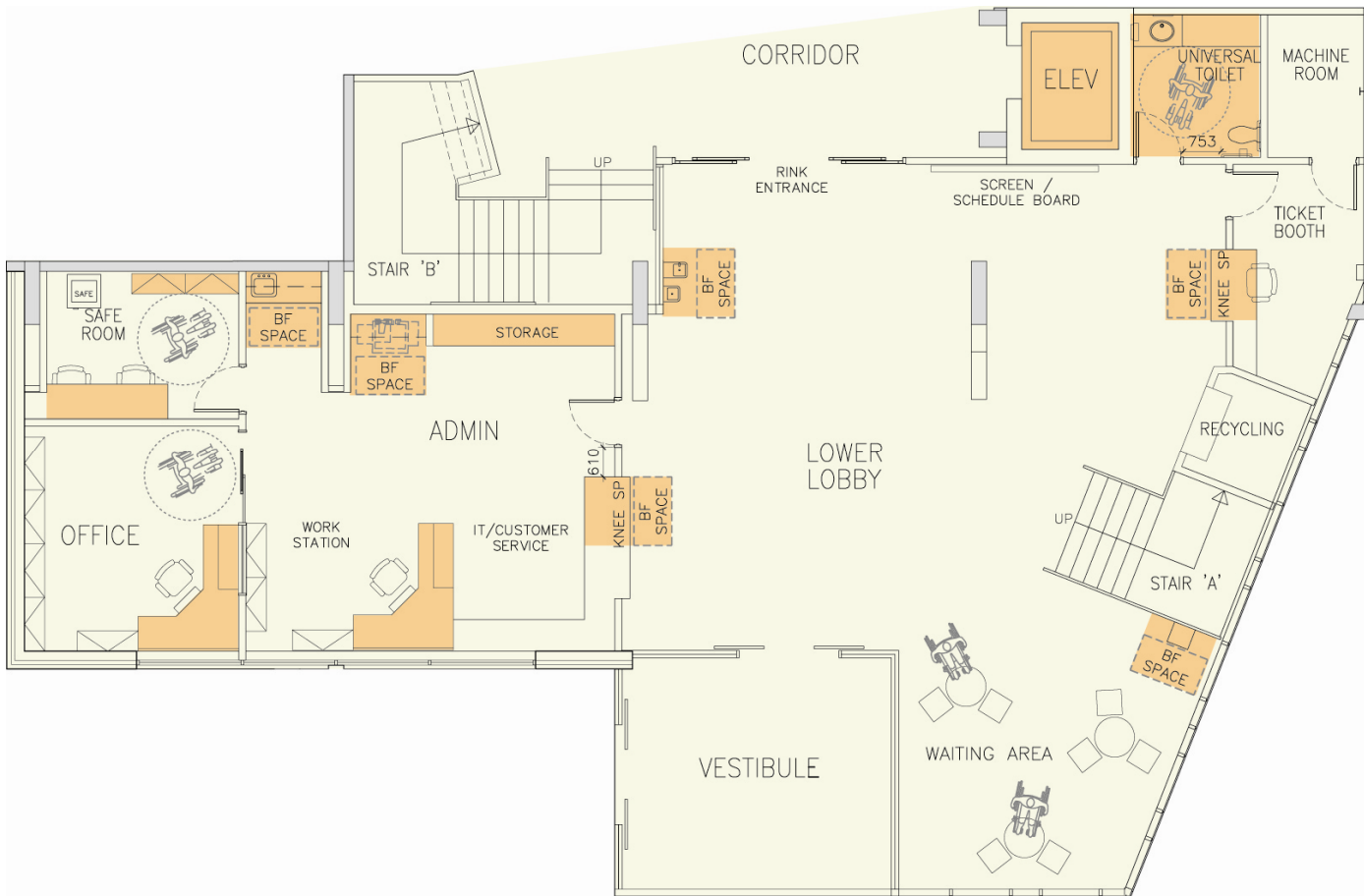
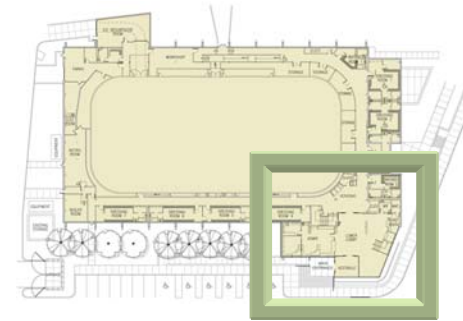
Lower Level Floor Plan

# Interior Perspectives



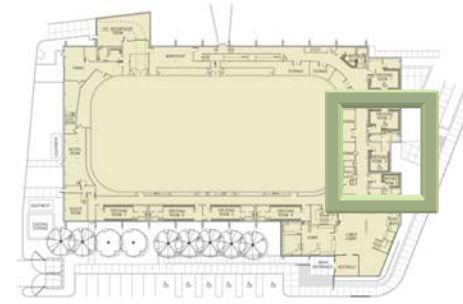
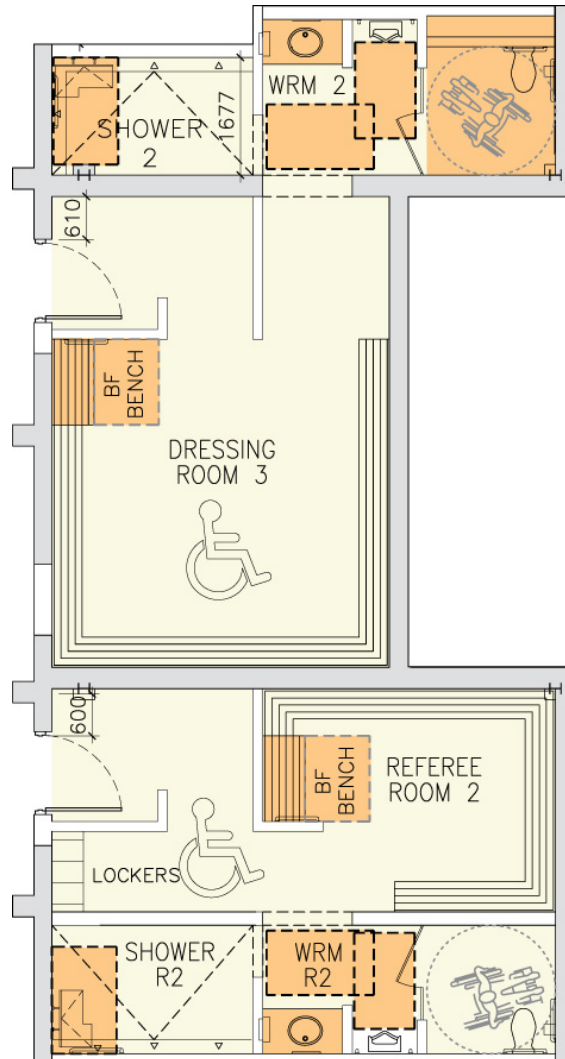
Concept View from Lower Lobby Looking Up

# Concept Floor Plans



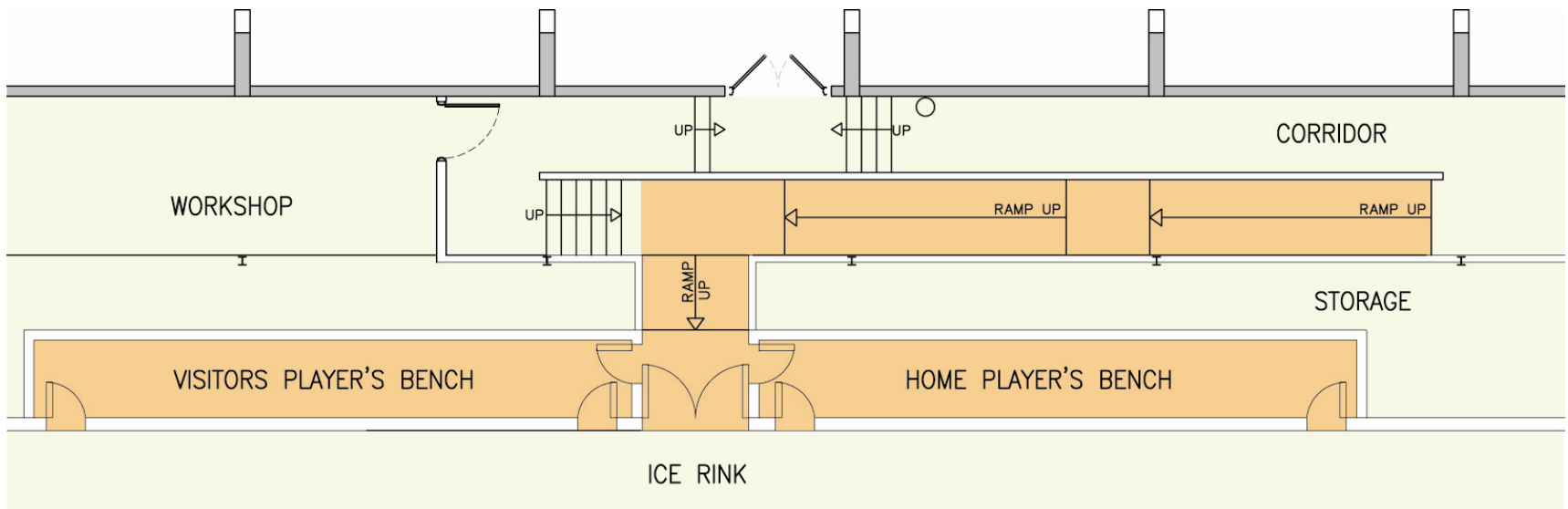
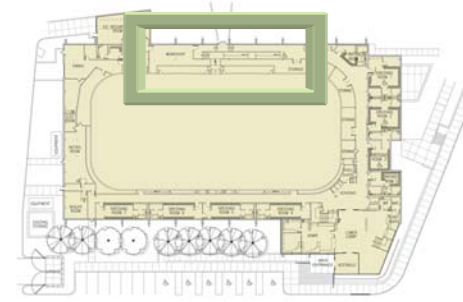
Lower Level Entrance

# Concept Floor Plans

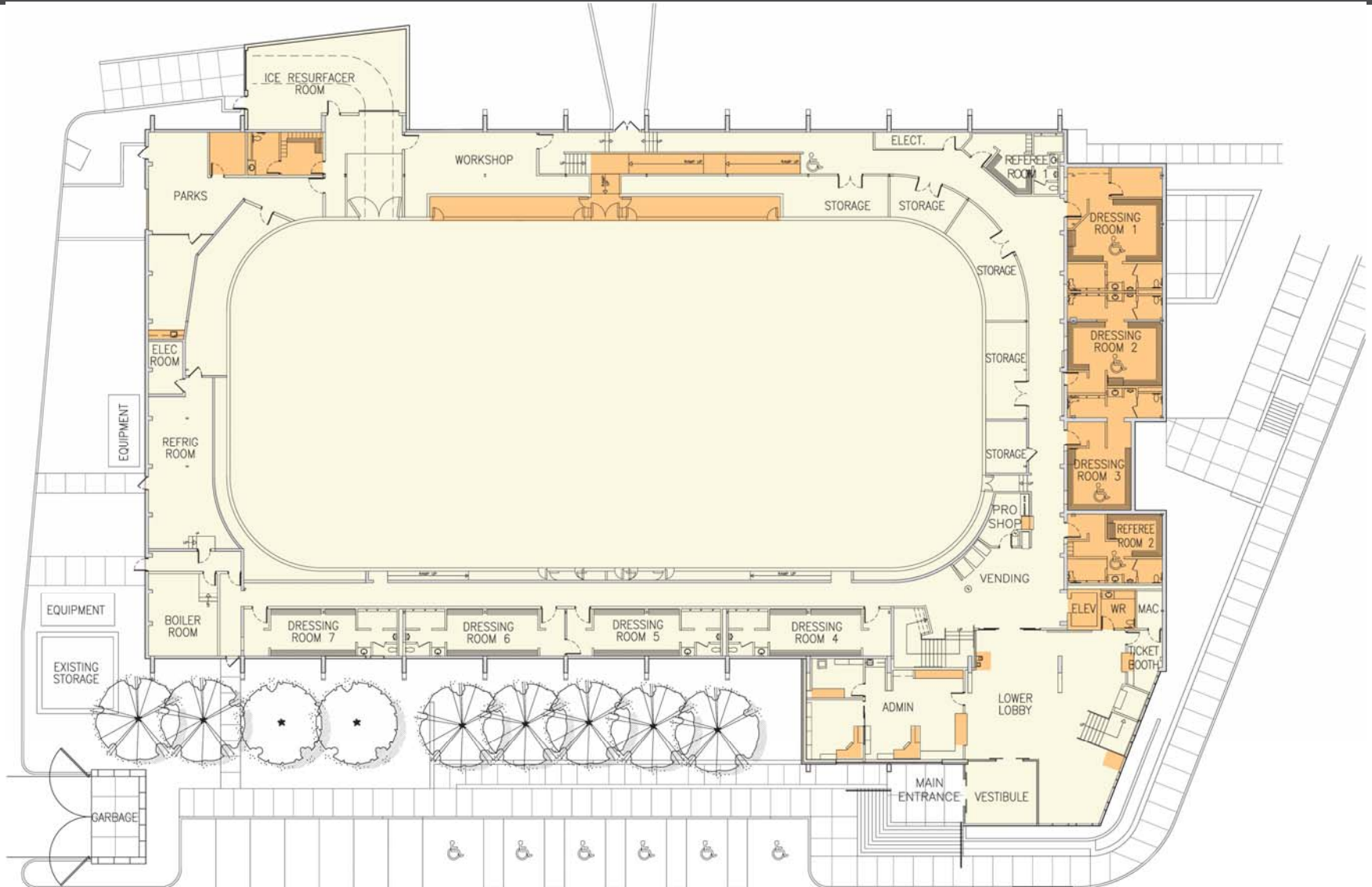


Dressing Rooms and Referee Room

# Concept Floor Plans

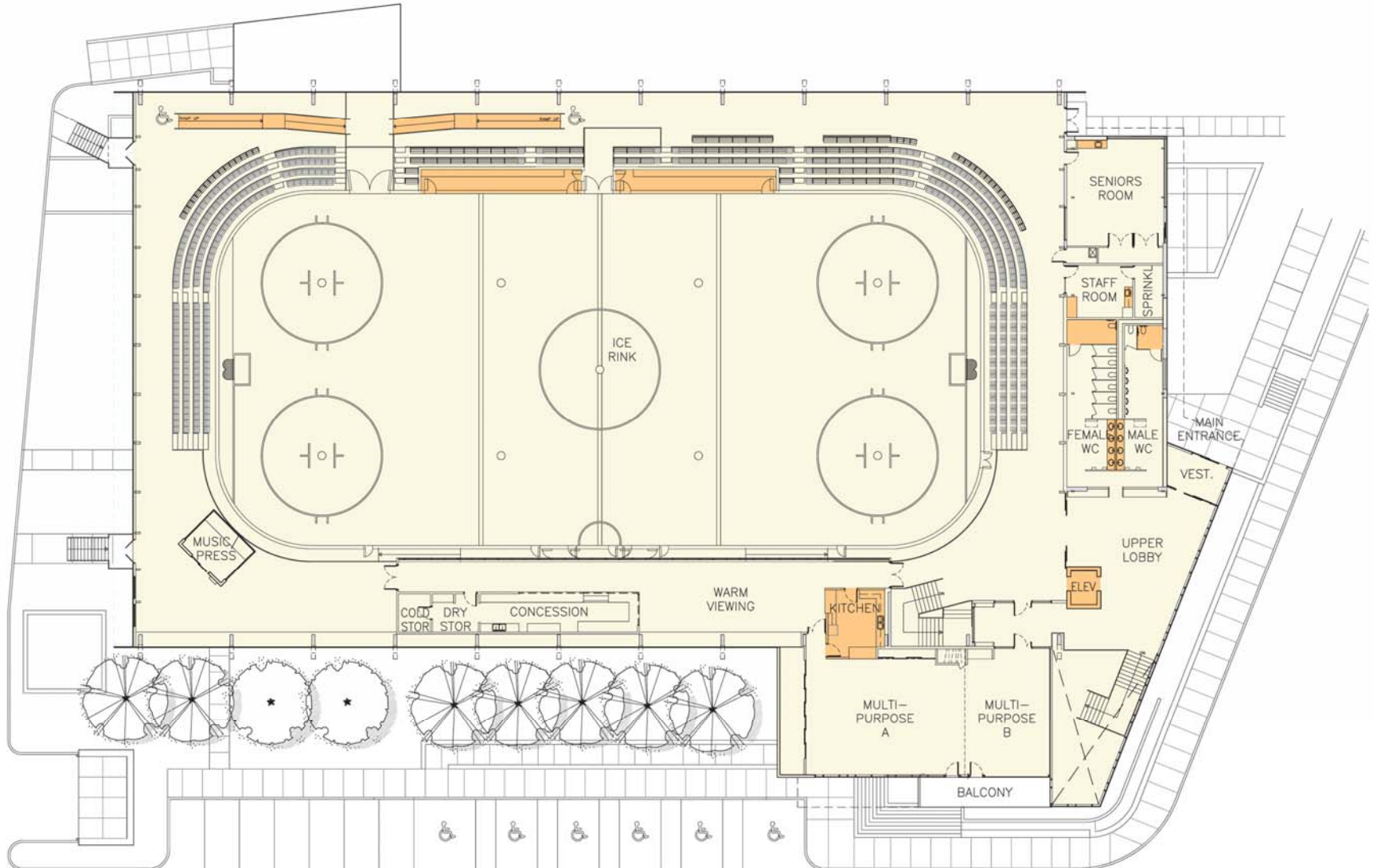


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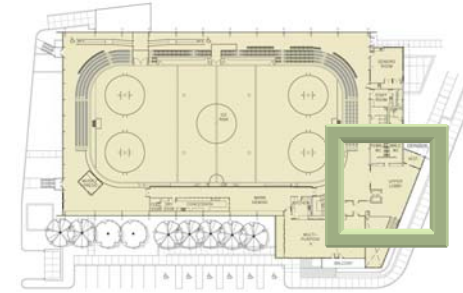
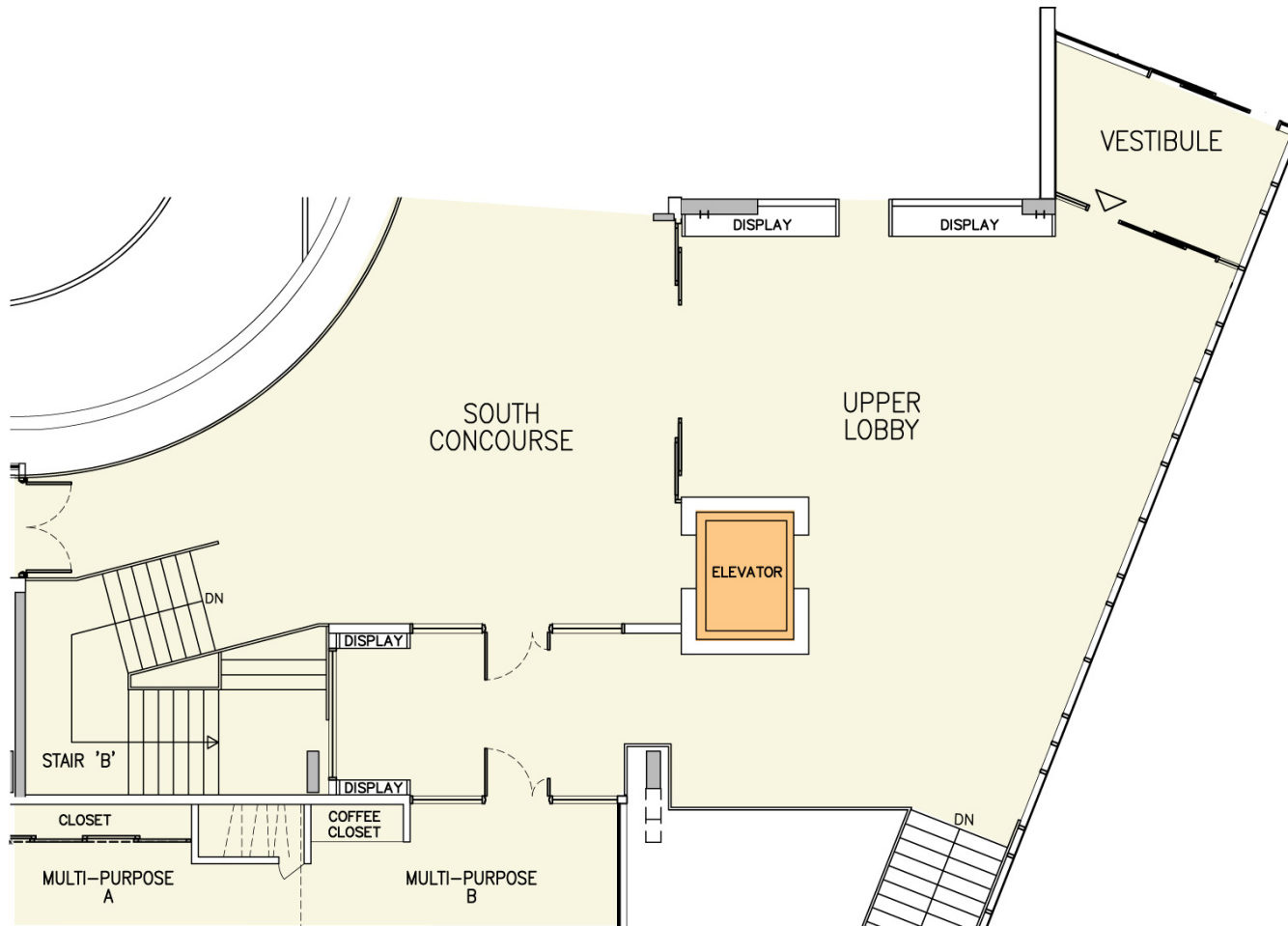
Lower Level Floor Plan

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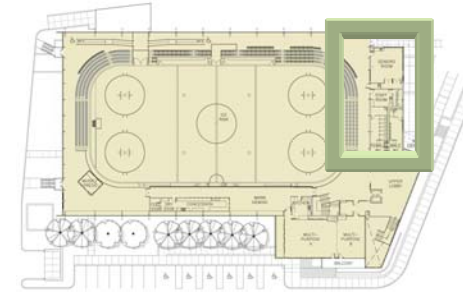
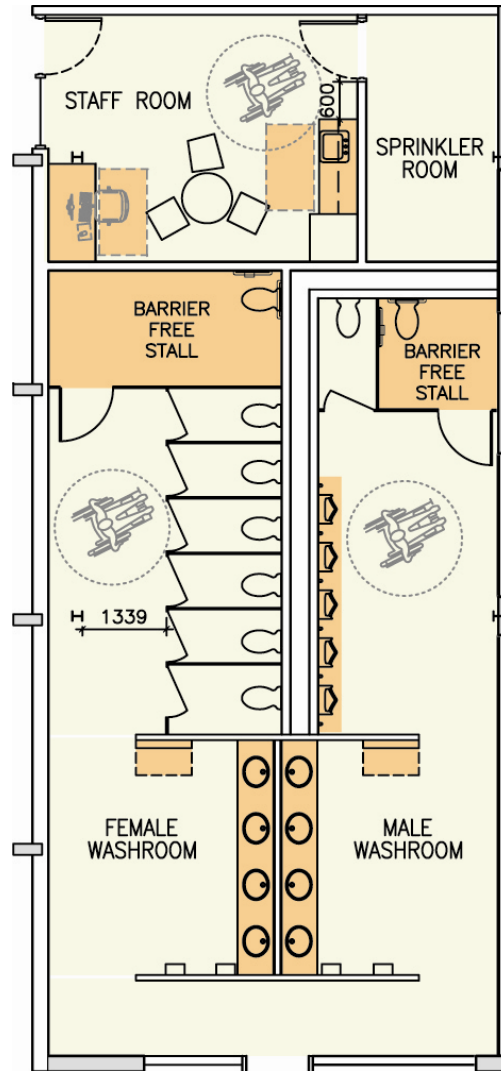
Upper Level Floor Plan

# Concept Floor Plans

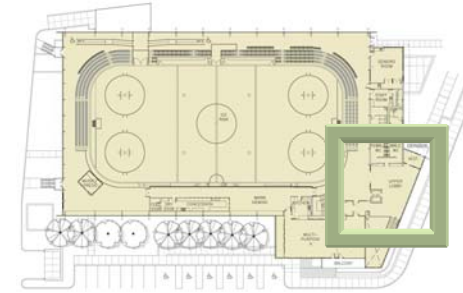
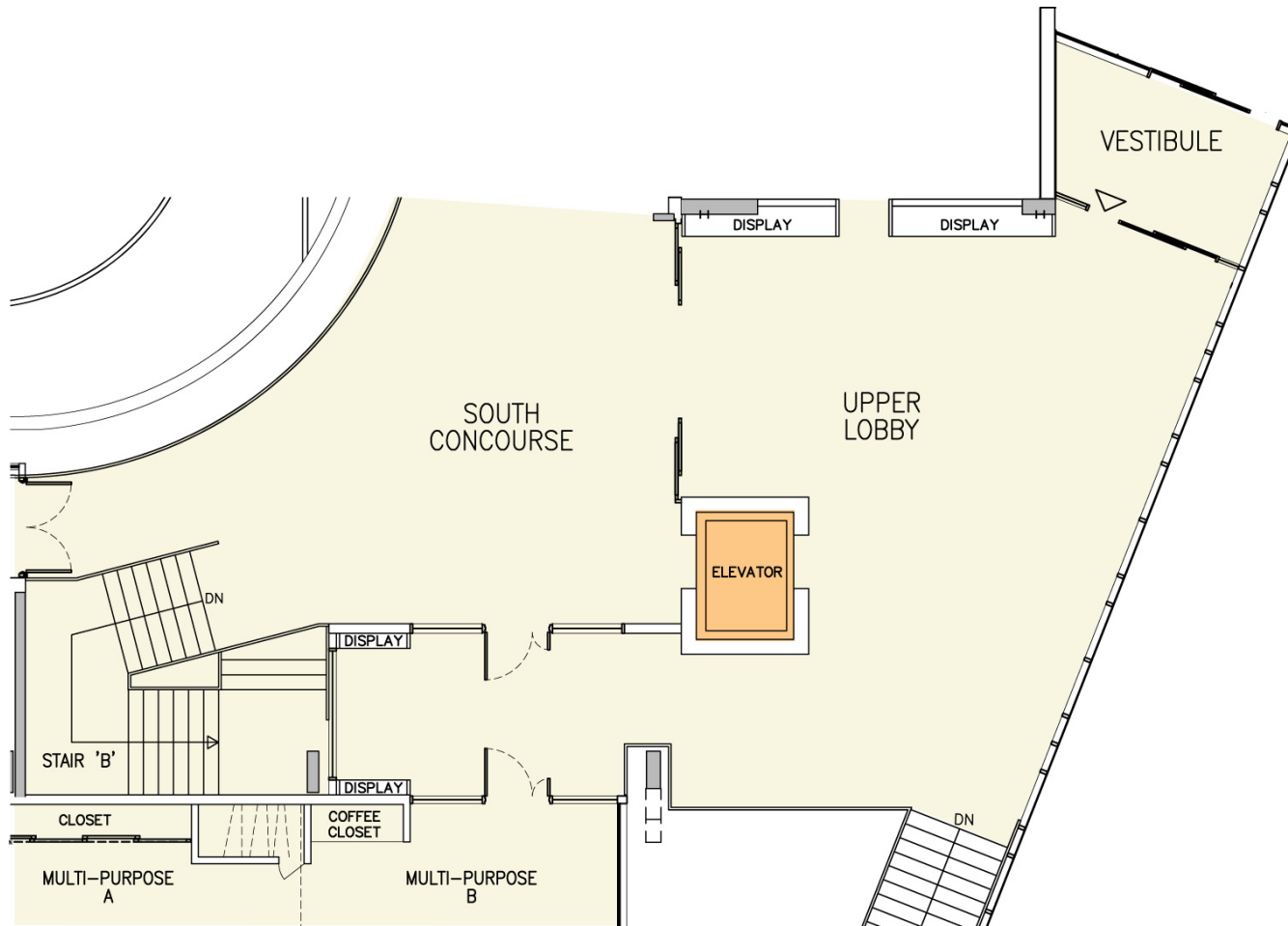


Upper Level Entrance

# Concept Floor Plans



# Concept Floor Plans



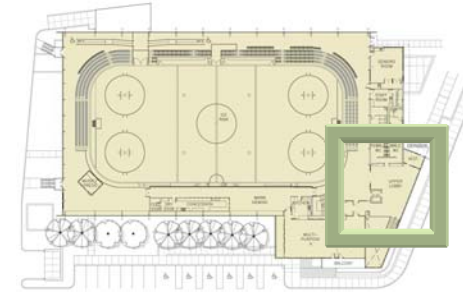
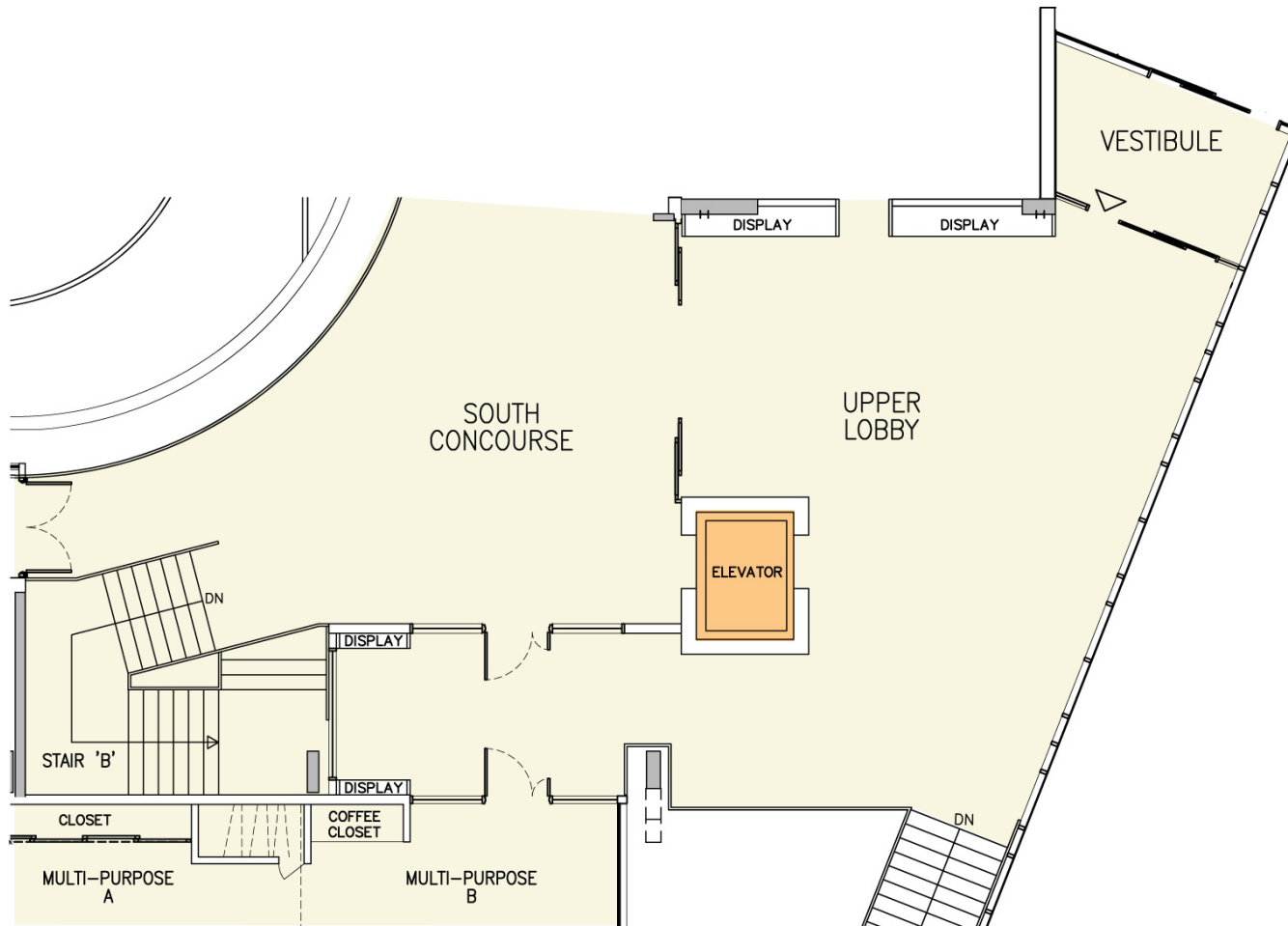
Upper Level Entrance

# Interior Perspectives



**Concept View of the Multipurpose Area at the Upper Level**

# Concept Floor Plans



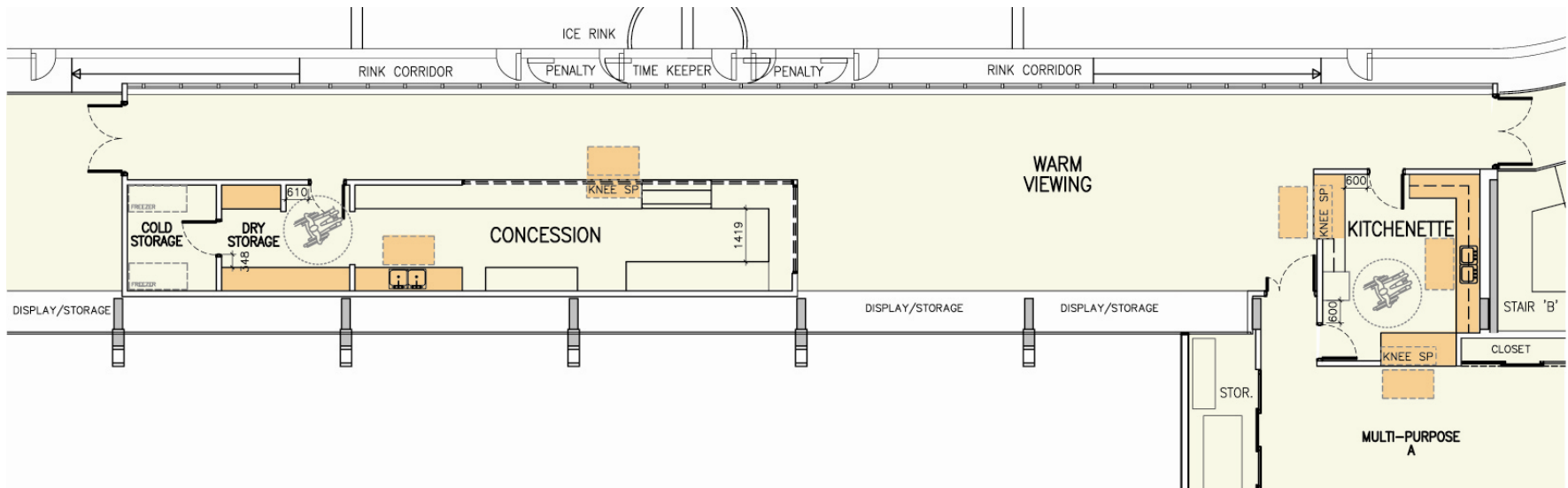
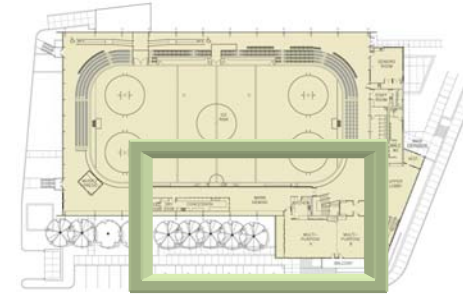
**Upper Level Entrance**

# Interior Perspectives



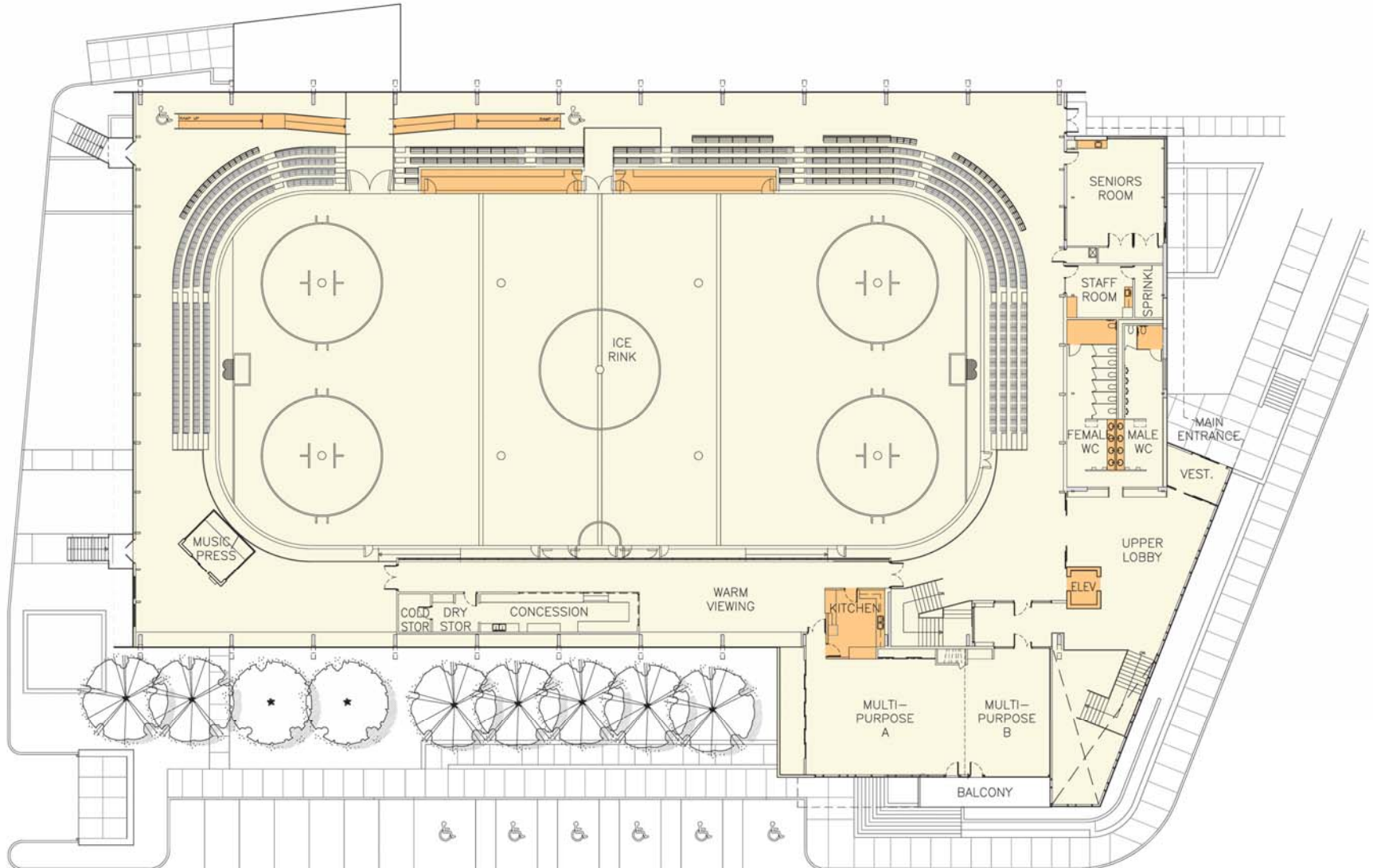
Concept View from Upper Entrance into the Arena

# Concept Floor Plans



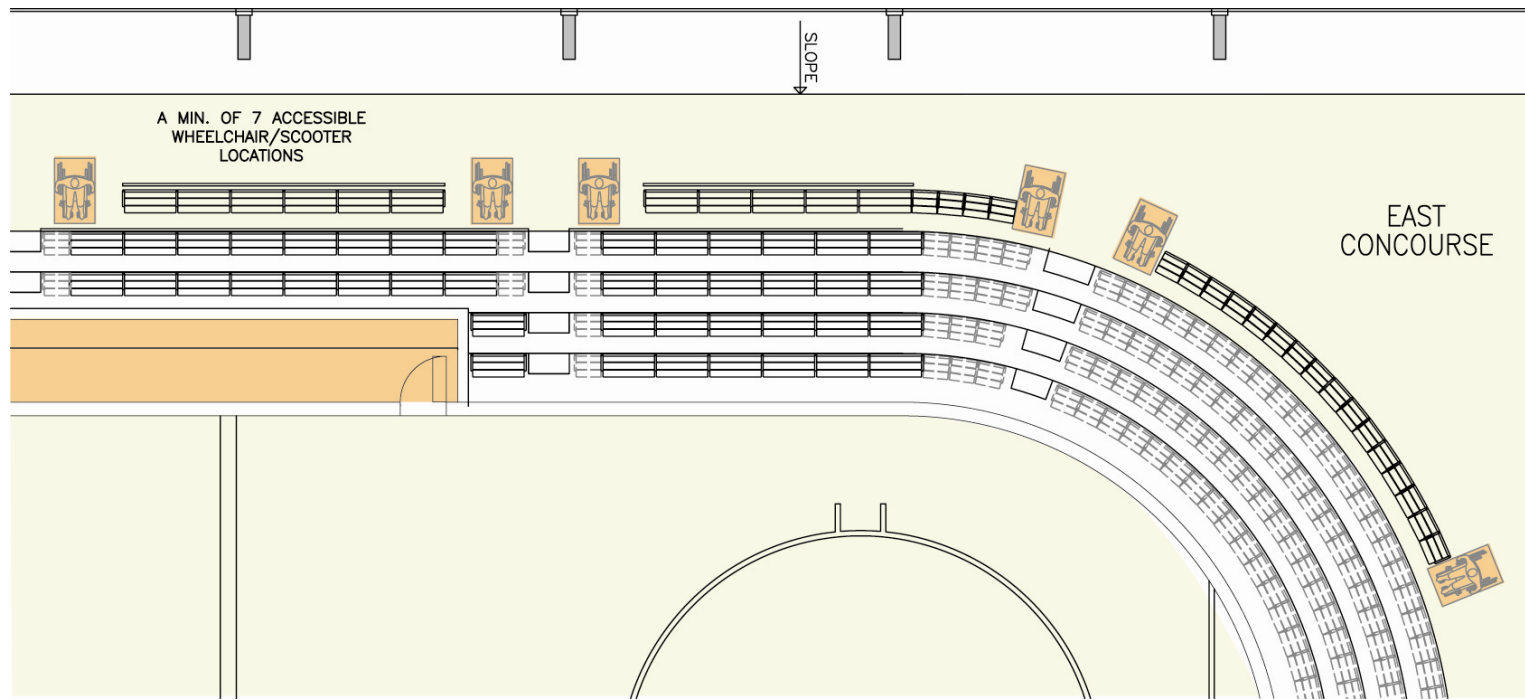
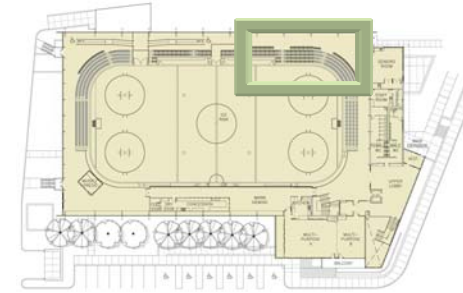
Viewing Area and Multipurpose Rooms

# Concept Floor Plans



Upper Level Floor Plan

# Concept Floor Plans



# Building Improvements

**Goal to have all renovated and new construction areas to be designed to meet the **Accessibility Design Handbook**, the **7 Universal Design Principles** and the **Ontario Building Code**.**

- Ramps
- Doors
- Desks and counters
- Player's benches will be accessible
- Stairs
- Floor and Wall Colour contrast
- Film on glass rails
- Elevator
- Public Washrooms – for use by all public (not just arena users)
- 1 Universal Washroom
- 3 Accessible Dressing Rooms and 1 Accessible Referee Room
- Public Washrooms – for use by all public (not just arena users)
- 1 Universal Washroom
- Lighting levels reviewed and adjusted
- Accessible Drink fountain added to Lower Level
- Public telephones added at both floors
- Viewing and Seating Area Options
- New vestibule with a eye wash station for the refrigeration room
- Contrasting colour signage (lower and upper case lettering)
- Waiting area with view to car pick up areas



# Universal Design

## THE PRINCIPLES OF UNIVERSAL DESIGN

Version 2.0 (4/1/97)

### 1 EQUITABLE USE

The design is useful and marketable to people with diverse abilities.



- GUIDELINES**
- 1a. Provide the same means of use for all users: identical whenever possible; equivalent when not.
  - 1b. Avoid segregating or stigmatizing any users.
  - 1c. Make provisions for privacy, security, and safety equally available to all users.
  - 1d. Make the design appealing to all users.
- EXAMPLES**
- Power doors with sensors at entrances that are convenient for all users
  - Integrated, dispersed, and adaptable seating in assembly areas such as sports arenas and theaters

### 5 TOLERANCE FOR ERROR

The design minimizes hazards and the adverse consequences of accidental or unintended actions.



- GUIDELINES**
- 5a. Arrange elements to minimize hazards and errors: most used elements, most accessible; hazardous elements eliminated, isolated, or shielded.
  - 5b. Provide warnings of hazards and errors.
  - 5c. Provide fail safe features.
  - 5d. Discourage unconscious action in tasks that require vigilance.
- EXAMPLES**
- A double-cut car key easily inserted into a recessed keyhole in either of two ways
  - An "undo" feature in computer software that allows the user to correct mistakes without penalty

### 2 FLEXIBILITY IN USE

The design accommodates a wide range of individual preferences and abilities.



- GUIDELINES**
- 2a. Provide choice in methods of use.
  - 2b. Accommodate right- or left-handed access and use.
  - 2c. Facilitate the user's accuracy and precision.
  - 2d. Provide adaptability to the user's pace.
- EXAMPLES**
- Scissors designed for right- or left-handed users
  - An automated teller machine (ATM) that has visual, tactile, and audible feedback, a tapered card opening, and a palm rest

### 6 LOW PHYSICAL EFFORT

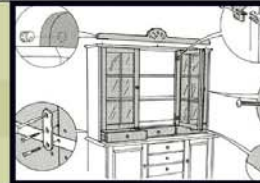
The design can be used efficiently and comfortably and with a minimum of fatigue.



- GUIDELINES**
- 6a. Allow user to maintain a neutral body position.
  - 6b. Use reasonable operating forces.
  - 6c. Minimize repetitive actions.
  - 6d. Minimize sustained physical effort.
- EXAMPLES**
- Lever or loop handles on doors and faucets
  - Touch lamps operated without a switch

### 3 SIMPLE AND INTUITIVE USE

Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.



- GUIDELINES**
- 3a. Eliminate unnecessary complexity.
  - 3b. Be consistent with user expectations and intuition.
  - 3c. Accommodate a wide range of literacy and language skills.
  - 3d. Arrange information consistent with its importance.
  - 3e. Provide effective prompting and feedback during and after task completion.
- EXAMPLES**
- A moving sidewalk or escalator in a public space
  - An instruction manual with drawings and no text

### 7 SIZE AND SPACE FOR APPROACH AND USE

Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.



- GUIDELINES**
- 7a. Provide a clear line of sight to important elements for any seated or standing user.
  - 7b. Make reach to all components comfortable for any seated or standing user.
  - 7c. Accommodate variations in hand and grip size.
  - 7d. Provide adequate space for the use of assistive devices or personal assistance.
- EXAMPLES**
- Controls on the front and clear floor space around appliances, mailboxes, dumpsters, and other elements
  - Wide gates at subway stations that accommodate all users

### 4 PERCEPTIBLE INFORMATION

The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.



- GUIDELINES**
- 4a. Use different modes (pictorial, verbal, tactile) for redundant presentation of essential information.
  - 4b. Maximize "legibility" of essential information.
  - 4c. Differentiate elements in ways that can be described (i.e., make it easy to give instructions or directions).
  - 4d. Provide compatibility with a variety of techniques or devices used by people with sensory limitations.
- EXAMPLES**
- Tactile, visual, and audible cues and instructions on a thermostat
  - Redundant cueing (e.g., voice communications and signage) in airports, train stations, and subway cars

THE PRINCIPLES WERE COMPILED BY ADVOCATES OF UNIVERSAL DESIGN, IN ALPHABETICAL ORDER:

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**NOTE:**  
The Principles of Universal Design are not intended to constitute all criteria for good design, only universally usable design. Certainly, other factors are important, such as aesthetics, cost, safety, gender and cultural appropriateness and these aspects must also be taken into consideration when designing.

# Perspectives



Existing View from Stavebank

# Perspectives



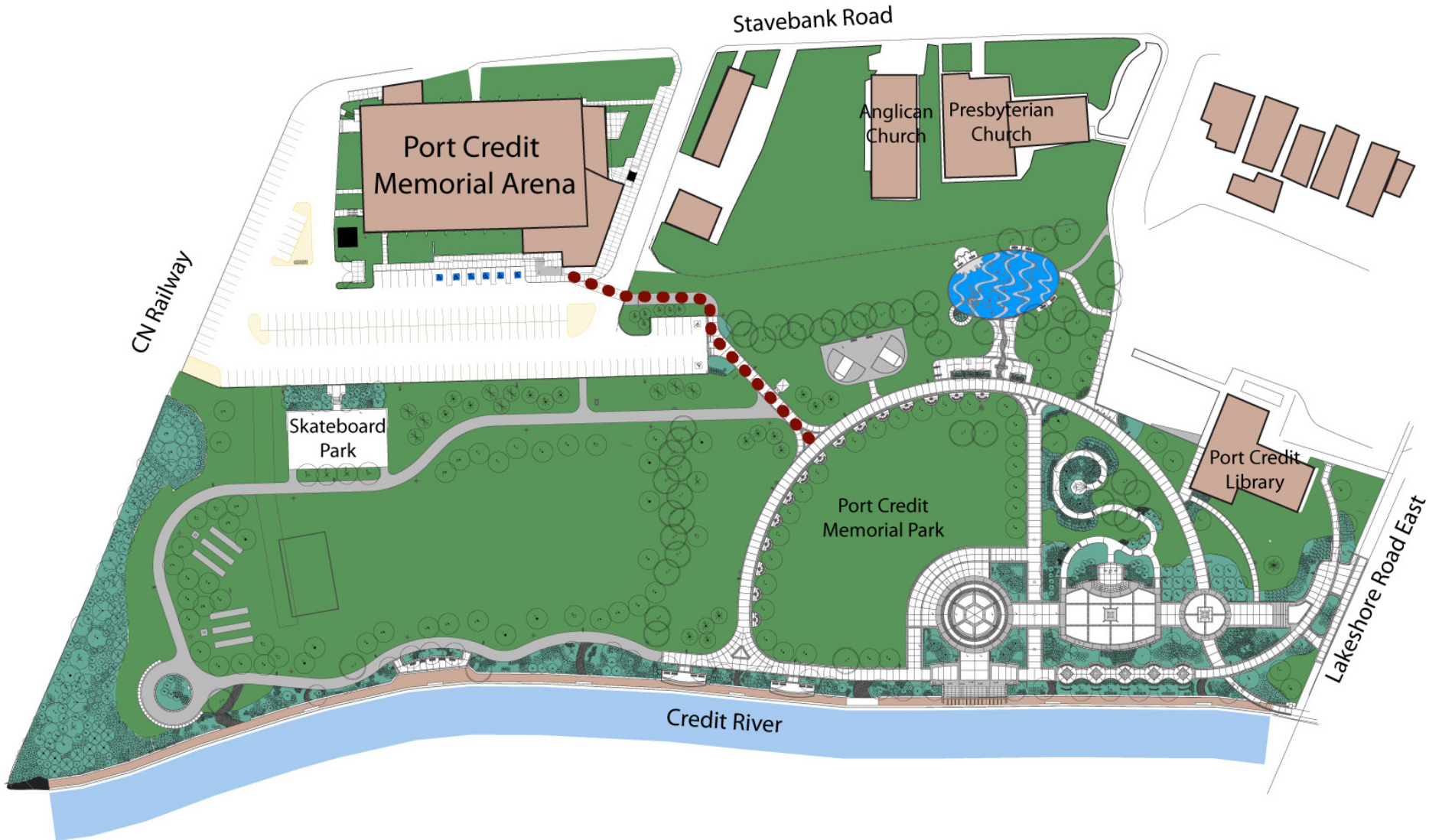
Existing View from Upper balcony looking towards the park

# Interior Perspectives



Concept View from Upper Lobby looking towards the park

# Context Plan



# Interior Perspectives



Concept View of the Ice Rink